

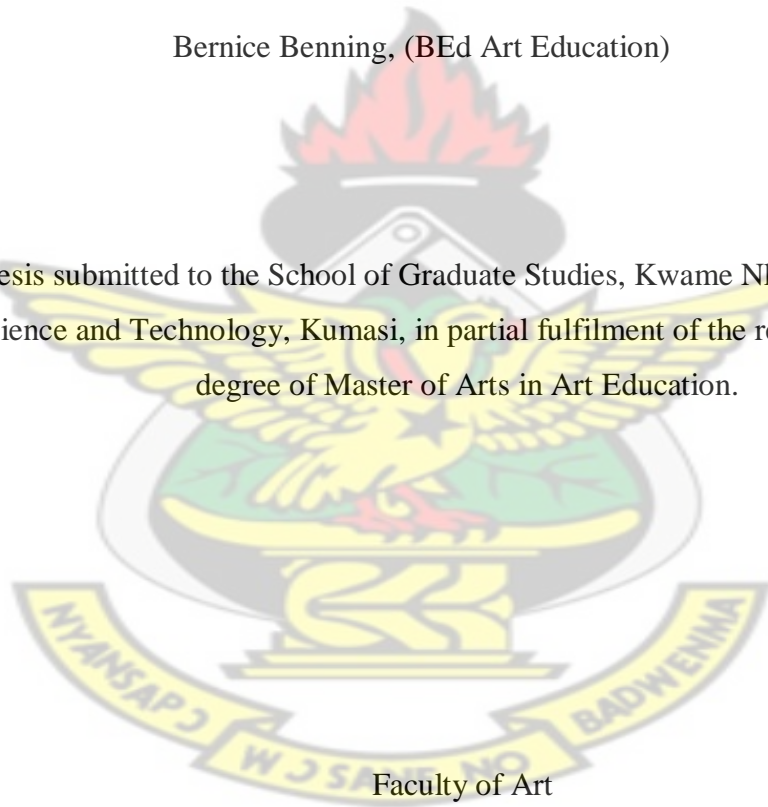
EVALUATION OF PROJECT WORKS BY HIGHER NATIONAL
DIPLOMA STUDENTS OF GRAPHIC DESIGN IN TAKORADI
POLYTECHNIC (2004-2009)

KNUST

By:

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A Thesis submitted to the School of Graduate Studies, Kwame Nkrumah University
of Science and Technology, Kumasi, in partial fulfilment of the requirement for the
degree of Master of Arts in Art Education.



Faculty of Art

College of Art and Social Sciences

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DECLARATION

I hereby declare that this submission is my own work towards the MA degree and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any degree of the university except where due acknowledgement has been made in the text.

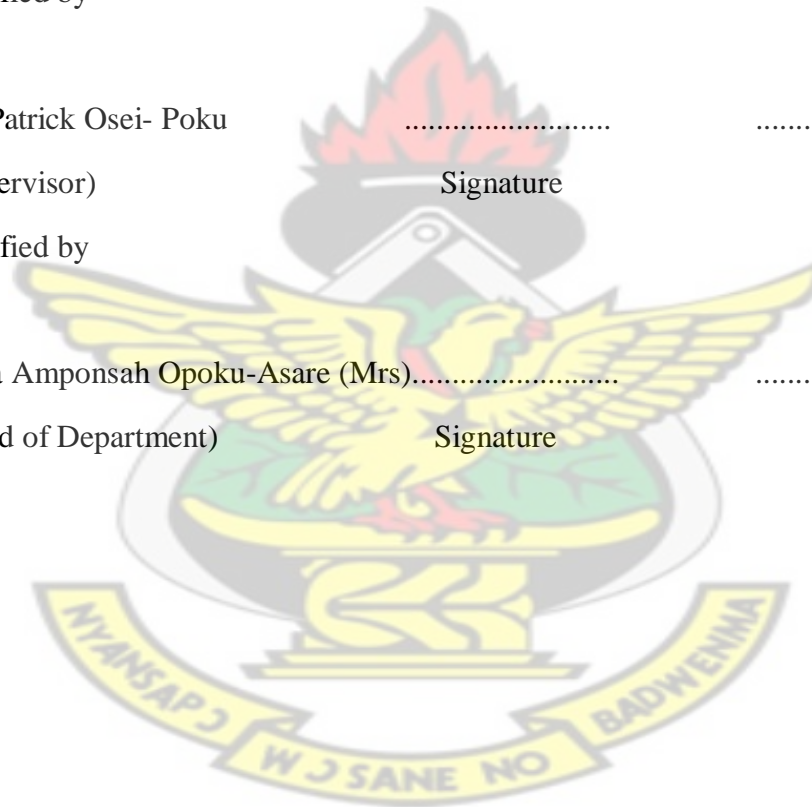
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ABSTRACT

The nation has artistic developmental needs, hence the establishment of Higher National Diploma in Commercial Art Programmes at the Takoradi Polytechnic to meet the growing demands in the industry and for students to be self employed after school. Students' project works play an important role in this regard, however there has not been any form of official evaluation since its inception in 1995 as far as the Graphic Design department is concerned. The main aims of the study were to: identify the project works done by final year students, examine the project works of students to ascertain whether they address pertinent current and future issues to the nation and examine how the works of final year students are executed. The researcher used interviews and questionnaires to collect the data. The tools were employed to ascertain facts, opinions, beliefs, comments and suggestions. The qualitative method enabled the researcher to describe the kinds of project works students of the department do and examine their strengths and weaknesses. The findings revealed that the project works of students are of no doubt a great benefit to the nation. Apart from inculcating in the individuals the skills for the Graphic Design industry, it helps in educating the general public that is, both literates and illiterates on a number of issues. It also helps producers of various items to advertise them and this in turn helps the economy to grow. On the other hand, the steady increase in the admission of students has not reflected in the acquisition of more equipment and the accommodation of the department. Again, more lecturers should be brought on board so as to improve on the lecturer- student ratio.

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CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter is an introduction to the study as a whole. Issues captured include: Background of the Study, Statement of the Problem, Objectives, Research Questions, Delimitation, Limitation, Definition of Terms, Importance of the Study and Organisation of the rest of Text.

1.2 Background to the Study

Graphic Design is an important tool for communicating to both literates and illiterates. It helps give information direction, education and many other benefits. Therefore its study and advancement at the higher level of education such as the Polytechnic to champion its cause is a step in the right direction.

The world as a global village is filled with technology in all areas. As a result of high competition in the Graphic Design industry, it is necessary to fashion out the works done by students to inspire them and rekindle their skills and potentials. That is why there is the need for evaluation of project works to establish its ability to prepare students for the modern technological advancement in the Graphic Design industry.

1.3 Statement of the Problem

Considering the artistic developmental need of the country, the three year Higher National Diploma in Commercial Art Programme (Graphic Design) was set up to meet the growing demands of the industry for middle-level manpower and also prepare graduates for self employment.

In partial fulfilment of the requirements for the Higher National Diploma, students are required to undertake project works and submit reports on them in their final year of study. Since the establishment of the programme in 1995, no official evaluation has been done to find out whether students' project works fall in line with the objectives of the course of study. Again there has not been any study to show whether students' project works are geared towards solving present and future problems in the industry and whether the quality of students' works are improving or not.

There may be problems with choice of topics, tools, materials, equipment, and finance, execution of works, which militate against the realisation of set objectives and whether results achieved out of the project works meet the demands of the industry as well as the Department.

There is therefore the need to evaluate project works of students of HND, graphic design programme to find out their strengths and weaknesses and make recommendations to help improve the quality of students' project works and write-ups.

1.4 Objectives

The study will:

1. Identify the project works done by final year students.
2. Examine the project works of students to ascertain whether they address pertinent current and future issues to the nation.
3. Examine how the works of final year students are executed.

1.5 Research Questions

1. What areas of graphic design works are done by final year students?
2. How far do final year students' project works address the current and future issues pertaining to the nation?
3. How are the works of final year students executed?

1.6 Delimitation

The research is limited to the project works of Graphic Design students of Takoradi Polytechnic between the years 2004 and 2009.

1.7 Limitation

The researcher could only lay hands on the results of students' project works from 2004-2007.

1.8 Definition of Terms

Project works: the graphic design practical works submitted at the end of the three year course.

1.9 Importance of the Study

This thesis will serve as a reference material and will provide vital information on the quality of works of students to polytechnic lecturers.

It will also help the lecturers come out with a curriculum that will be geared towards a more practically oriented programme to achieve the objectives of obtaining the middle-level manpower personnel.

1.10 Organisation of the rest of Text

This study consists of five chapters. Chapter one, which is the introduction, touched on the background to the study, statement of the problem, objectives, justification of the objectives, research questions, delimitation, limitation and the importance of the study.

The chapter two covers the review of the selected related literature. It has defined evaluation and the meaning of Graphic Design. The chapter three discusses the methodology used to ascertain the information for the study, characteristics of the population, research procedure, and tools used to collect data and treatment of the data.

Chapter four examined the results. It identified the problems associated with the project works of students in the Graphic Design department of the Takoradi Polytechnic, described, analysed and interpreted the data.

Chapter five ends the study with the summary of findings, conclusions and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Overview

This chapter is an account of literature related to the topic being researched. The topic provides five broad categories of literature to be reviewed, namely; Meaning of Evaluation, Evaluation of Visual Art Works, Meaning of Graphic design, Some Technological Advancement in Graphic Design and HND Graphic Design syllabus.

2.2 Meaning of Evaluation

Best (1981) posits out that evaluation deals with applying findings, and that it implies judging the effectiveness, social utility, or desirability of a product, process or programme based on carefully defined and agreed upon objectives and values. This view is also shared by Airasian (1996) who also thinks that evaluation is the cause of action in which judgement is made about what is good or desirable. He continues to say that Evaluation takes place after assessment information has been collected, synthesised and thought about because this is when the teacher is able to make informed judgement and decisions. In assessment, information is collected, synthesised and interpreted. Thus the information include what is gathered in the classroom, what helps the instructor understand his students and others and the purpose is to provide feedback and incentives, judge academic learning and progress, and diagnose students' problems. Both writers agree on the fact that to evaluate, one needs to judge the effectiveness or desirability of a

product, process or programme based on agreed upon measures. This according to them is done after carefully synthesising information collected and applying the findings. That is why information concerning the choice of topics, tools, materials, equipment, and execution of works, among others will be collected from students and lecturers and synthesized so as to make judgements and informed decisions on the strengths and weaknesses of students' project works.

A similar view is shared by Guy (1988) who says that in evaluation, decision is made about the quality, goodness or appropriateness of a programme, system or product. Thus based on the findings of this research, decisions would be made about the quality, goodness or appropriateness of the Higher National Diploma Graphic Design programme.

Eisner (1994) also points out that many people regard evaluation as something similar or equivalent to the giving of grades but then it does more than that. It is used in education to perform much more different functions such as diagnosing, revising curricula, comparing, anticipating educational needs and determining whether educational goals have been met. Eisner therefore agrees with Airasian that evaluation helps to diagnose students' problems. Thus the findings that will be gathered will help make decisions about the quality, goodness or appropriateness of project works as a product.

Furthermore, Cronbach (2006) defines evaluation as the collection of information to make decisions about an educational programme. This is to say that Cronbach agrees

with the view of Guy regarding decision making in evaluation based on information gathered.

Eisner again makes mention of the fact that goals remain without assessment and that goals are claimed empty ambition without assessment. He subsequently affirms that assessment system in place needs to have standards for each domain being assessed so as to determine whether levels of students' performance are adequate. The measure provides information while the standard provides the basis for determining the adequacy of students' performance. That is, in making decisions about education there must be set goals and the goals have to be assessed else it will be referred to as an empty ambition. There is no doubt therefore that the department of graphic design in Takoradi Polytechnic has got its goals and objectives as far as project works are concerned and for those goals to be achieved there should be some form of assessment based on agreed upon standards to ensure effectiveness. By so doing adjustments will be made where necessary and the goals will not be referred to as empty ambitions.

Rosenshine (1970) describes available instruments for classroom instruction by using four criteria namely, assessing variability in the classroom behaviour, assessing whether teacher-performance agrees with specified criteria, describing classroom interaction and determining relationship between classroom behaviour and outcome. Major emphasis is given to evaluation of instruction within specific curriculum project. Here, Rosenshine throws more light on Eisner's view regarding assessment using standards to determine the adequacy of students' performance. In using the criteria outlined by Rosenshine, the researcher will find out how students' behaviour in the

classroom has changed during practical classes, assess whether teacher-performance agrees with specified criteria, describe classroom interaction between students and lecturers or technicians and determine the relationship between classroom behaviour and its outcome.

Kenneth (1968) asserts that “Teaching necessitates some form of regular feedback from the learner”. Mehrens and Lehmann (1978) also points out that there cannot be any feedback without evaluation and no systematic improvement in learning can be done without feedback. Kenneth and Mehrens and Lehmann accept that feedback in learning is essential and it cannot be achieved without evaluation. Owusu (1994) adds to this point that “Socrates (469-399BC) held the opinion that “ “an unexamined life is not worth living” “. That is why Bloom (1971) thinks that, “Evaluation is an element of professional development”. Thus all social systems need the insight that can be a result from periodic or continuing evaluation if it is to succeed and continue to contribute to the development of the society, an opinion by Murphet et al (1959). Therefore, Owusu, Bloom et al as well as Murphet et al concur that evaluation is necessary in social systems for development, but Murphet thinks that it should be done periodically and continuously. Thus evaluation of students’ project works to find out the strengths and weaknesses is a step in the right direction for the department of graphic design in Takoradi Polytechnic to ensure systematic improvement or improvement in learning by making correction where necessary.

On the other hand, Cole (1951) thinks that if education is seen as the serving agent of development then constant evaluation must be ensured. His view on constant

evaluation corresponds with that of Murphet et al. In effect, one of the requirements for the Department of Graphic Design, Takoradi Polytechnic to become a serving agent of the development is not to evaluate it once a while but to do so constantly and this must start at a point.

Thorpe (1993) writes that evaluation adds a value component to a course by improving it to benefit the learner in creating systems designed to meet their intended goals. This is to say that if evaluation is carefully done, stakeholders including lecturers, technicians, examiners and others of the department in question will identify the strengths and build on them and then work on the weaknesses to add value components to the course as a whole. This will benefit the learner and will help meet the intended goals of the department as a whole and the polytechnic as well.

Bledge (1986) thinks that “Change in the structure and systems of education to meet modern standards have become the order of the day in developing countries”. Thorpe and Bledge share a related view since one is commenting on adding a value component and the other change in structure and systems in education. With such a dynamic world that we find ourselves in, it is only normal to substitute certain structures and systems of education to make things better and to meet global standards.

According to Knack (1995), Bernard claims that “Reasonable men adapt themselves to their environment”. In this vein, people that will acclimatise to change that may result from evaluation will be considered reasonable because they have been able to fit in a different environment.

Kristoffersen (2003) explains Programme Evaluation which is a type of evaluation. According to Kristoffersen, programme evaluation covers specific programmes as a whole or selected aspect thereof. He shares the view that evaluation in this regard encompasses all components that influence programme quality. Thus evaluating students' project works can be classified under programme evaluation as it covers a selected aspect of the programme and influences its quality.

Eisner (1994) designed a book about education in schools as well as processes in education to provide a perspective on the development of schooling in America on its shifting aims on the kind of programme that can be created for them and how they could be assessed. This educational imagination attempts to intensify the discussion and provide ways of analysing critically the aims, structure and process of schooling. Eisner's point of view on analysing critically the aims, structure and processes of schooling could be seen as components in education which can influence programme quality that Kristoffersen talked about because it is a selected aspect of a whole programme.

Gruber and Hobbs (2002) say history has it that art education has not emphasised assessment, and that a large part of the 20th century's significance of art experience has been placed not so much on learning in art as a tool for self expression. Assessment in art which is used as a measure of students' learning has been relegated to the category of irrelevant necessity. These two writers put emphasis on the need to assess art as it is used as a measure of students learning as a tool for self-expression. Therefore evaluating an aspect of the art programme which is the project works of students of the graphic design

department of Takoradi Polytechnic will result in a contribution to the use of learning in art as a tool for self expression.

Baettie (1997) makes a point about assessment in art education and he states that assessment in art education prepares the art teacher and even those with limited knowledge in the field of test and measurement to address assessment effectively as it relates to his or her own classroom needs. In effect, lecturers and technicians will benefit from the evaluation exercise because they will identify areas that they need to work hard on and areas that they are doing well.

2.3 Evaluation of Visual Art Works

Hagtvedt et al (2008) discuss the issue of perception and evaluation of visual art. They are of the view that the nature of art has been a subject of philosophical interest since the days of the ancient Greeks. But the experience, and the results of perception and evaluation of art, seems challenging to grasp within a scientific framework. They make mention of the fact that visual experience of art debatably includes both cognitive and emotional components. In their view, perception refers to the process of making sense of the world around us; it involves the acquisition, interpretation, selection, and organisation of sensory information. According to Hagtvedt, (ibid) the importance of perception in understanding people's interaction with the world has been well established since Plato's allegory of the cave, as explained in the 'Republic'. They also discuss that perception is dependent on a host of physiological and social factors thus age, health, hunger and cultural differences, social roles, self-concept respectively. They therefore used the acquisition, interpretation, and organization of affective and cognitive elements

stimulated by an artwork and the interplay of these elements in forming the evaluation of art.

Regarding cognitive elements, they emphasise that it deals with the use of intellectual appeal to a work of art in addition to the perception of attributes related to it, for instance how certain colours look when used with certain shapes. However, the affective elements deal with the emotions one attaches to works of art and it involves the aesthetic experience one goes through when he comes into contact with a work as well as the judgment of beauty one forms about a work of art. That is why they think that it is well established that visual art is an aesthetic stimulus that evokes an emotional response.

Hagtvedt et al made use of an empirical investigation which was conducted in three stages. Specifically, they reconstruct the emotional and cognitive processes underlying the experience of visual art from characteristics of the stimuli and then extend this understanding to develop a confirmatory model that more robustly tests these relationships using a single stimulus. Stage one involved preliminary item generation in which lists of emotions and attributes involved in the perception and evaluation of art were elicited using a variety of artworks. Stage two was designed to refine and further develop the scales for the emotional and cognitive components involved in consumers' perception of visual art, as well as to develop a structural equation model that combines these components in the evaluation process. Finally, Stage three involved conducting a Confirmatory Factor Analysis (CFA) and a test of the structural model using a single stimulus. In the same manner, art works of students of the graphic design department would be used to elicit the students' perception regarding their emotions and attributes.

The Grade Evaluation Guide for Visual Art Works by United States Office of Personnel Management (1991) outlines some evaluation processes and in their occupational information they say that the evaluation guide applies to the works of exhibit specialists, illustrators, and visual information specialists. Exhibit specialists produce two- and three-dimensional displays of artwork, historical and scientific artifacts, or technical products and processes intended to inform, train, convince, or entertain. They also preserve and restore historic structures and large scale museum objects such as historic aircraft, which for the purposes of this guide, are considered three dimensional exhibits and historic artifacts.

Illustrators execute illustrations in a variety of styles with various art media. They use freehand techniques as well as drawing instruments and computer graphics software. Some illustrators also retouch photographs. Visual information specialists, unlike exhibit specialists and illustrators, are designers rather than "doers." While they may have the skills necessary to produce finished artwork, and in some cases actually do illustration and exhibit specialist work, the primary purpose of their work is to design and select the various elements of visual products. These visual products include books, magazines, pamphlets, exhibits, or series of visual images intended to accompany live or recorded oral presentations. Visual information specialists typically produce sketches, drawings, or models in order to communicate their design ideas to others. It is clear from the above that graphic design students of Takoradi Polytechnic execute similar works of art at the end of their course as project works. While specific techniques and products differ among these occupational specialties, a common trend runs through the work of all three occupational categories and their various sub-specializations: the requirement for

planning and, in some cases, personally executing the creation of a visual product intended to convey information. The Grade Evaluation Guide measures the relative levels of difficulty of work in terms of a pattern common to all three of these occupational categories. The emphasis is on applying technical knowledge and skill to produce work according to detailed specifications as well as originality, developing the design, and deciding the specific content of a visual product. Likewise the department of Graphic Design, Takoradi Polytechnic has got its own criteria for the students to produce their final works.

The Grade Evaluation Guide speaks about the extensive use of computers in the carrying out of works as a standard tool in the design and creation of visual products. They vary from simple "desk top" personal computers to large scale integrated computer systems and subsystems that require some training to attain expertise in their use. Graphics software packages that perform page layout, drawing, photo retouching, video animation, and color separation processes enable designers and illustrators to produce a wide range of images. They range from two-dimensional line drawings to fully-modeled, subtly colored pictures that create the illusion of three dimensions, and animated sequences that create the illusion of moving through space and around objects.

The computer graphics software is used together with a range of peripheral devices. Some enable users to scan images into their works and make alteration where necessary. Hand-held devices such as the mouse permit electronic drawing and painting with freehand. There is also a variety of output devices that range from the common printers used in offices to devices that are able to reproduce computer-generated images as ink-on-paper, transparencies, or video. Other software applications include sign-

making machines, photo-typesetting devices and electronic transfer of full-colour images to other locations for high resolution photographic enlargement to poster-size prints. Computer technology is considered for purposes of this guide as one of the many kinds of visual media that may be selected to communicate a particular message, and is to be treated as the same as these other media when applying the grading criteria provided. While there can be difficulty in learning to work with electronic media, the degree of complexity of the equipment used does not in itself make the work performed difficult. Rather, the difficulties in visual art works lie in applying the principles of visual design and making use of the skill through an art medium, to show what is imagined. Use of computers to produce illustrations, graphs, publication layouts, charts and typographical elements has made it difficult to notice the distinctions between works traditionally performed by illustrators and graphic designers and that which is now performed by employees in other occupations. It is unclear to distinguish between illustrators or visual information specialists and employees from other occupations who produce computer-generated graphics.

2.4 Meaning of Graphic Design

Mork (1994), states that, history of graphic design dates back to days when drawings were made on the cave walls and decoration made on pottery. The term and profession graphic design and graphic designer respectively came up in the 20th century. The profession gained popularity in book design and general print design. Typography technology developed in the 1920s when designers claimed fonts, logos and stamps as their own. Graphic design became popular as a result of advertising, packaging and

printing. The print shop corporation and entertainment world made demands from the designers. Graphic design firms sprung up leading to the setting up of the first graphic design school- Bauhaus, founded in 1919 in Germany. In the 1980s, computers began to be used, it became the standard for graphic design.

Bonsiepe (1994) writes that by tradition it is known that the graphic designer is mainly a 'visualiser', one who organizes visual components that are then reproduced with the aid of printing technology. Consequently, among the list of objects of professional actions we find: logotypes, stationary, book and magazine layout, advertisement and campaigns, exhibitions, displays corporate identity systems and signage systems. Most of the project works of students fall under these categories of works thus these students could also be referred to as 'visualizers' because they organise and reproduce visual components with the aid of technology to bring out their works.

Margolin (2000) in a journal concerning graphic design says that graphic design does not have a fixed meaning; it was first used by the American book and advertising designer W. A. Dwiggins in 1922 during that period, graphic design was a profession about typography, book design or advertising design. By the 1960s designers worked on large scale, they got involved in exhibitions, urban signage projects and corporate identity programmes which brought about the term communication design. There has been additional improvement especially in the digital realm where designers make use of text, images, sound and others which work hand in hand with film making and sound design. These days many products of the department of graphic design, Takoradi Polytechnic find themselves in firms and companies making use of digital visuals as well as sounds in their daily demands, hence the name communication design instead of graphic design.

According to Margolin, some of the things that make current graphic design different from that of earlier times include the proliferation of new media. He says that designing good web sites, for example, requires a deeper understanding of cognitive psychology, learning theory, and other social science disciplines than most communication designers have. In another sense, however, there are aspects today that are similar to the past; these include great posters, well-designed newspapers and magazines, wonderful books, excellent typography. The great accomplishments of designers from the past are very much alive and are very much relevant to most works that are done today. When a web designer has poor training in typography, for example, it is evident. He continues to say that there are several reasons why there is insufficiency of publication which covers the history of graphic design. Firstly, because historians of the visual arts have not taken much interest in graphic design the reason being that it may seem too insignificant. There has been more interest when design could be treated like art as in the case of Art Nouveau posters. Secondly, the culture of design has not been a culture of writing and few practitioners have written graphic design histories. But now there are a few survey texts in graphic design history written by designers: Phil Meggs in the USA, Richard Hollis in England, and Enric Satué in Spain

Frascara (1988) affirms that graphic design has developed more in its practical aspects by evolved into a complicated practice in a little-by-little trend with scattered effort aimed at the development of sub-areas such as poster or bookmaking but without either the criteria apparatus in literature or the discussion present in architecture. This point adds up to the fact that there has not been enough literature on graphic design

compared to the development of the practical aspect which has moved from simple cave writings to sophisticated digital designs.

Hollis (1992) also emphasise that, graphic design is not just 'visual communication', it is visual communication seen by graphic designers to be graphic design exactly like the difference between architecture and building. Hollis states that, the graphic designer does not control the content of what he or she designs. There is a relationship between image and text in modern times unlike times past when they were separated by the technology of letterpress printing and they could only be joined by hand laboriously. With regards to 'evaluation and the process of design', Hollis's point of view is that one criterion used formally was simply what was thought to be good therefore designers produced works that could be understood and used then. Hollis makes it clear that works of graphic designers are not for the consumption of themselves alone but for the consumption of the public at large who also interpret the content of works and this has to be taken into consideration.

Dorn (2002) claims that, the three important things to be assessed in art instruction are: *expression* needed to answer the question of whether the instructional programme and students' learning is philosophically consistent with means and ends of art, *knowledge* and skill to help estimate the psychological validity of curriculum which accounts for human growth and development, learning and individual differences; and *concept formation* in relation to how they grow and change in their thinking. This form of assessment will come to play here in this work as the project works of HND graphic

design students will be assessed in so doing, expression, knowledge and skill as well as concept formation will be considered.

Lowrie (2004) in his article describes research into the role of dialogue journals within graphic design education. This was a seminar series on graphic designers, designed to meet the needs of undergraduates at a state funded university, south-east of the United States. Students' needs were identified based on studio observation and filled in questionnaire. It was realised that students' conception about graphic design needed to be expanded; they also had to understand design activity within a broader concept than what they already knew. Consequently, in this work, a similar approach will be adopted where the needs of students would be identified based on observation during studio work, interview and answering of questionnaire.

2.5 Some Technological Advancement in Graphic Design

Holly (2012) in an article that talks about the advancement of graphic design said that, Graphic Design has come a long way from its days on a letterpress and that technology has aided design at every turn and made it increasingly more simple, shareable, and powerful. He made it clear that design benefits from programs like the Adobe creative suite and innovations with technology like online file storage have only fueled the power of graphic design. He mentioned that previously, graphic designers had to depend on web developers to help create websites. While designers could easily create effective layouts and beautiful content they would need more than just design experience to make their sites interactive. Designers had to learn computer and coding languages or hand over their work to more tech savvy collaborators. But today, Adobe systems has delivered an

update to its Web creation tool for designers, one of them is code-named *Muse Beta 3*. This helps graphic designers access the web. In addition are other software applications that the students of Takoradi Polytechnic graphic design students can access to help them in their graphic design project works such as web site designing. Adobe Muse can enable graphic designers according to Holly (ibid) to create and publish professional Websites without writing code or working within restrictive templates. Already a success, more than 260,000 designers downloaded the technology in the first 40 days after it was developed. This shows the advancement and how ready graphic designers are to adapt to technological progress. The Muse Beta 3 programme also adjusts the way the code is developed so that it can be processed more easily and web pages load faster.

Another technological advancement shared by Holly is 'Cloud Computing'. Designers put a ton of effort into creating engaging, quality work. However, large files can be very difficult to handle. Designers with high quality files and complex work quickly find that emails are not powerful enough to move those files around. Designers had to transport large files physically, mailing flash drives back and forth. Now, designers have the luxury of cloud computing. By storing their work online, they cannot only deal with much larger files but also share it with anyone that has an internet connection. Recently, FedEx and Google Docs (companies) teamed up to make cloud computing and printing even more collaborative. They are offering FedEx Office Online, which allows users to print from their Google Documents. The printed materials can be picked up at a store front, sent to the client, or delivered to your doorstep. Cloud

computing has been a hugely helpful tool for boosting designers' work, their presence, and their reach.

The 'Adobe Creative Suite' is also a software for designers that always evolves. The progressive software keeps designers on their toes by rolling out an update every 18-24 months. These updates make the Creative Suite (which includes Illustrator, Photoshop Extended, Flash Professional, 'InDesign', Fireworks, Dreamweaver, Flash Catalyst, Bridge, Drive Central and Acrobat) more intuitive and vast. It allows designers, animators, and artists to more easily create exactly what they intended and create it faster.

Updates to the new software are impressive. The program has new tools such as perspective drawing for Illustrator and a touch-sensitive brush for Photoshop. It's a great time to be a Graphic Designer and the growing ability of design technology will free designers to become true designers instead of technicians.

2.6 Approaches to Advancement in Graphic Art

According to Rodgers (1998), computer graphics is widespread today. Computer imagery is found on television, in newspapers, for example in weather reports, or for example in all kinds of medical investigation and surgical procedures. A well-constructed graph can present complex statistics in a form that is easier to understand and interpret. In the media "such graphs are used to illustrate papers, reports, thesis", and other presentation material. Many powerful tools have been developed to visualize data. Computer generated imagery can be categorized into several different types: 2D, 3D, and animated graphics. As technology has improved, 3D computer graphics have become more common, but 2D

computer graphics are still widely used. Computer graphics has emerged as a sub-field of computer science which studies methods for digitally synthesizing and manipulating visual content. Over the past decade, other specialized fields have been developed like information visualization, and scientific visualization more concerned with "the visualization of three dimensional phenomena (architectural, meteorological, medical, biological, etc.), where the emphasis is on realistic renderings of volumes, surfaces, illumination sources, and so forth, perhaps with a dynamic (time) component.

Two-dimensional:

2D computer graphics are the computer-based generation of digital images mostly from two-dimensional models, such as 2D geometric models, text, and digital images, and by techniques specific to them. They are mainly used in applications that were originally developed upon traditional printing and drawing technologies, such as typography, cartography, technical drawing, advertising, etc.. In those applications, the two-dimensional image is not just a representation of a real-world object, but an independent artifact with added semantic value; two-dimensional models are therefore preferred, because they give more direct control of the image than 3D computer graphics, whose approach is more akin to photography than to typography.

Pixel art: Pixel art is a form of digital art, created through the use of raster graphics software, where images are edited on the pixel level. Graphics in most old (or relatively limited) computer and video games, graphing calculator games and many mobile phone games are mostly pixel art.

Vector graphics: Vector graphics formats are representation of images as an array of pixels, as it is typically used for the representation of photographic images. It encodes information about shapes and colors that comprise the image, which can allow for more flexibility in rendering. There are instances when working with vector tools and formats is best practiced. An understanding of the advantages and limitations of each technology and the relationship between them is most likely to result in efficient and effective use of tools.

Three-dimensional

3D computer graphics in contrast to 2D computer graphics are graphics that use a three-dimensional representation of geometric data that is stored in the computer for the purposes of performing calculations and rendering 2D images. Such images may be for later display or for real-time viewing. Despite these differences, 3D computer graphics rely on many of the same algorithms as 2D computer vector graphics in the wire frame model and 2D computer raster graphics in the final rendered display. In computer graphics software, the distinction between 2D and 3D is occasionally blurred; 2D applications may use 3D techniques to achieve effects such as lighting, and primarily 3D may use 2D rendering techniques.

3D computer graphics are often referred to as 3D models. Apart from the rendered graphic, the model is contained within the graphical data file. However, there are differences. A 3D model is the mathematical representation of any three-dimensional object. A model is not technically a graphic until it is visually displayed. Due to 3D

printing, 3D models are not confined to virtual space. A model can be displayed visually as a two-dimensional image through a process called 3D rendering, or used in non-graphical computer simulations and calculations. There are some 3D computer graphics software for users to create 3D images.

Computer animation: Computer animation is the art of creating moving images via the use of computers. It is a subfield of computer graphics and animation. Increasingly it is created by means of 3D computer graphics, though 2D computer graphics are still widely used for stylistic, low bandwidth, and faster real-time rendering needs. Sometimes the target of the animation is the computer itself, but sometimes the target is another medium, such as film. It is also referred to as CGI (Computer-generated imagery or computer-generated imaging), especially when used in films.

Virtual entities may contain and be controlled by assorted attributes, such as transform values (location, orientation, and scale) stored in an object's transformation matrix. Animation is the change of an attribute over time. Multiple methods of achieving animation exist; the rudimentary form is based on the creation and editing of key frames, each storing a value at a given time, per attribute to be animated. The 2D/3D graphics software will interpolate between key frames, creating an editable curve of a value mapped over time, resulting in animation. Other methods of animation include procedural and expression-based techniques: the former consolidates related elements of animated entities into sets of attributes, useful for creating particle effects and crowd simulations; the latter allows an evaluated result returned from a user-defined logical expression,

coupled with mathematics, to automate animation in a predictable way (convenient for controlling bone behavior beyond what a hierarchy offers in skeletal system set up).

To create the illusion of movement, an image is displayed on the computer screen then quickly replaced by a new image that is similar to the previous image, but shifted slightly. This technique is identical to the illusion of movement in television and motion pictures.

McConnell(2006), agrees with the development of computer graphics over the years and he says that the computer is able to perform many complex tasks in 2D and 3D which hitherto were not done. The study will find out whether students of the graphic design department of the Takoradi Polytechnic make use of these advancements to do their project works.

2.7 Aims and Objectives of HND Graphic Design

The department has the main aim of preparing students for employment in the artistic industries such as Publishing, Advertising and Printing as well as making students self-employable in line with current national policy.

The objectives of the programme are:

- a) To foster and promote creativity by helping students to think, act and feel creatively through a variety of art activities using tools and materials.

- b) To provide students with theoretical knowledge, practical skills and visual thinking in art which are termed as cognitive, psychomotor and affective modes of development.
- c) To inculcate in students the need to appreciate the value of their own art so as to arouse their pride and patriotism.
- d) To encourage skills in the development of local materials and resources in promoting self and small scale industries.
- e) To let students acquire perceptual and analytical skills through art experiences as well as self-expression and communication skills through response to art.
- f) To develop in the student subjective qualities in harmonizing opposing ideas, contradictions and inconsistencies so as to cope with healthy human relationships.
- g) To help students use their creative abilities, knowledge, skills and attitudes in the production of artifacts' such as communication design, printing, packaging, etc.

The above aims and objectives relate to the Graphic Design Programme as a whole nonetheless, there are specific ones that relate directly with project works of students. The first objective which is fostering and promoting creativity in student through a variety of art activities has to do with practical works of which project works of students forms a vital part. The psychomotor skill the student will derive is as a result of the art activities and this will help inculcate in students the need to appreciate and value their own art as stated in the third point above. The last objective also talks about helping students to use their creative abilities, knowledge and skills in the production of artifacts and this has a direct link with the project works of students. These will serve as standards for judging whether the works of students meet the set objectives. For instance, students' works would be looked at to find out whether truly they have acquired thinking, acting and feeling creative through a variety of art activities using tools and materials.

In a different document which is a white paper on the report of the Education Reform Review Committee (2004), the government has it that it will equip all the Polytechnics in the country to make them offer tertiary education, emphasizing practical skills that are needed to run the productive economy and build a nation. The document states emphatically that in order for the above purpose to be achieved, the practical component of polytechnic training involving hands-on experience in industrial arts and other areas would be greatly enhanced.

CHAPTER THREE

METHODOLOGY

3.1 Overview

This chapter discusses the research design, library research, nature of population studied, sampling, data collection instruments, types of data, administration of instruments, steps taken to collect data and data analysis plan.

3.2 Research Design

The researcher made use of Qualitative research method, emphasizing on Descriptive and Survey methods. This method enabled the researcher identify and describe the kinds of project works students of the department of Graphic Design, Takoradi Polytechnic do, and examine their strengths and weaknesses. The method was again used to ascertain facts, opinions, beliefs, comments and suggestions from respondents through interviews, questionnaire, and observations.

The survey method was used to identify, assess and evaluate the data collected in order to draw logical conclusions and recommendations. Questionnaire, interview and observation were used as instruments to collect data from individuals: namely, students, lecturers and external examiner of the Department of Graphic Design to ascertain

whether the aims and objectives for the project works are being achieved. This was done by evaluating some of the project works and the impact that the practical aspect of the course has on the students.

3.3 Library Research

The researcher visited various institutional and research libraries to tap information. These included; University of Education, Winneba and Kumasi Campus, KNUST Main library, College of Art library, KNUST, Art Education library also in KNUST, Kumasi Polytechnic and Takoradi Polytechnic libraries.

The researcher made effective use of the internet in addition to the libraries. In all these places visited, efforts were made to collect the necessary information with the help of the librarians, by making notes, photocopies from reports, journals, thesis, periodicals and books. Materials obtained were precise and relevant to the study.

3.4 Population for the study

The population was heterogeneous; it consisted of final year students and lecturers of the Graphic Design department as well as its external examiner. The final year students numbered 350 but only 200 of them were given the questionnaire. The department has 16 lecturers however 10 of them were interviewed together with one external examiner. The numbers of respondents were 211; nonetheless, 190 were assessed because the researcher could not retrieve all questionnaires back.

3.5 Sampling

Sampling is an appropriate procedure for dealing with a heterogeneous population that is, different strata of units. Best (1981) asserts that sampling makes it possible to draw valid inferences or generalization on the basis of careful observation of variables within a relatively small proportion of the population.

The population was divided into three (3) categories namely: (a) students of the department, (b) lecturers of the department, (c) external examiners of the department.

The total number of population selected from such groups was:

200, 10 and 1 respectively that is,

Category A- 200

Category B- 10

Category C- 1

The researcher randomly selected a sample of 200 and 10 respondents from categories A and B respectively and added the only external examiner of the department to represent the total population for validity of data, identical representation of the population, efficient and quality information. This is because it is easier to work on smaller population than a larger one.

3.6 Data Collection Instruments

The instruments used to solicit data for the study were questionnaire, interview and observation.

3.7 Types of Data

The researcher made use of primary data. The students, lecturers and the external examiner of the Graphic Design department are respondents who are very close to the solution of the issues at stake and direct responses came from them. A secondary data comprising of all the literature materials were used in addition.

3.8 Administration of Instruments

The questionnaires for the study consisted of questions to solicit information from students of the Graphic Design department. The section 'A' covered the kinds of work done by the respondents as well as the skills or techniques used. In section 'B', respondents were to state whether their project works were of any benefit to the nation. Section 'C' touched on issues concerning the execution of project works. In all 200 copies of questionnaire were administered 179 were retrieved.

The researcher conducted personal interviews to collect information from lecturers and the external examiner concerning the kinds of work done by students, how the project works of students benefit the nation and how their works are executed, 10 lecturers were interviewed representing 62.5%. The only external examiner of the department was also interviewed.

3.9 Data Collection Procedure

Preparatory work for this study started with the review of the related literature. This was followed by a preliminary field trip aimed at tracing the relevant materials for the study. The researcher sent the questionnaires herself and collected them within a specified time.

The researcher again observed through series of questions, and careful search, enabling her to identify the kinds of works done by students and how the project works of students benefit the nation. These were examined physically, photographs were taken to appreciate and criticize.

3.10 Data Analysis Plan

The data were assembled, analyzed, the facts interpreted, conclusions drawn and recommendations made. The details of this appear in the next chapter.



CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Overview

This chapter will examine issues relating to the project works of HND Graphic Design students of the Takoradi Polytechnic. The aim of the study was to find out whether students' project works fall in line with the objectives of the course of study. It was also to ascertain whether students' project works are geared towards solving present and future problems in the nation. The final objective was to find out whether the quality of students' works is improving or not.

4.2 Discussion of Findings

This category is made up of the students and lecturers of the Department of Graphic Design, Takoradi Polytechnic. The first objective of the research was to find out the types of graphic design works that students do. It was clear that most students are interested in undertaking projects related to packaging and advertising, a many more in photography and computer graphics. Only 16% of students were interested in printing, bookbinding, drawing and illustration. Of all the types of graphic design works, it could be said that drawing and illustration were the least popular. Table 1 shows the types of work and the number of students that did them.

Table1: Types of project works and the number of students who made them

Types of work	Number of respondents
Photography	36
Printing and bookbinding	20
Drawing and illustration	10
Packaging and advertising	73
Computer graphics	34
Thesis report	6
Total	179

The lecturers as well as the external examiner agreed on the types of graphic design works that students chose to do as their project works. The researcher in the interview with lecturers wanted to find out their opinions about previous and subsequent attitudes of students towards practical and project works, in general. The response gotten indicated that the attitude of students towards practical work in recent times is satisfactory even though, previous, students showed more commitment because of their maturity and their social or educational background. That is, previous student who had the 'O' and 'A' level background were mature in age and were also much exposed to Art as a subject therefore they took initiative and worked on their own with little guidance. This is unlike most students in recent times, who are much younger and need more guidance and motivation to work. Again, the number of students admitted formally was not as large as it is now, and this resulted in effective supervision of students' works at that time because of relatively good lecturer- student ratios.

Seven (7) of the lecturers were confident about the improvement of students results based on the assessment of students between the years 2004 and 2007. The remaining three (3) thought it has been satisfactory. Table 2 shows the detail of students' results of project works under the years being reviewed.

Table2: Results of students' project work (2004- 2007)

Year/Score	10-40	50+	60+	70+	80+	Total
2004	-	5	33	69	19	126

2005	1	4	22	70	44	143
2006	1	2	33	101	52	189
2007	-	6	33	71	34	144

The above scores indicate that the number of students who had marks between 70+ and 80+ in 2006 was an improvement on that of 2004 and 2005 but dropped in 2007 since in total those who scored 70 and above, total 153 for 2006 and 105 for 2007. It can be said that in all a greater number of students in each year group score above average in project works.

The objectives of students in choosing the works varied from one student to another, with the aim of addressing various problems in their school and the society at large. Looking at the various aims of students in undertaking their respective project works, the researcher found out that the objective of the department and for that matter the Polytechnic is being achieved since it aims at training people with theoretical knowledge, practical skills and visual thinking in art, which are termed as cognitive, psychomotor and affective modes of development to fit into the industry. About 168 of students, representing about 94% of the total number of students said that they have theoretical as well as practical skills especially with respect to what area they choose to do for their project works.

Table 3 shows the direct beneficiaries of students' project works. These beneficiaries refer to a person or group of people that will use the product that the

students produce. Table 3 shows that some aspects of the needs of the society have been fairly met. This is so because some of the works of students are intended to be used by basic schools, others by the secondary schools, they will supplement already existing textbooks. Furthermore, some works of students which are documentaries are targeted to address sanitary problems and all these are needs of the society. It was realized, however, that other aspects had been totally neglected for instance; there was only one respondent who targeted the health sector, four for the agricultural sector, none for the judiciary and other sectors.

Table 3: Beneficiaries of students' Project works

Beneficiaries	Number of respondents
Takoradi Polytechnic	38
Basic School Pupils (text books)	15
Senior High School Students (text books)	16
General Public (signage)	47
Agriculture (documentaries)	4
Specific Companies /Groups of People	53

(banks and churches)	
Individual	5
Health	1

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The second objective of the research was to ascertain whether the works of students address pertinent current and possible future issues of the nation. Through the students' own creative minds they come out with themes that guide them to solve problems or meet societal needs and the following are some of the reasons for students taking up particular project works:

- To identify typographical errors in signposts.
- Decrease bad habits in certain parents.
- To help the graphic design department appreciate their staff.
- To promote documentary.
- To help educate teachers in preparing and using teaching and learning materials.
- To advertise various schools.
- To identify, collect and collate information about past and present rectors of Takoradi Polytechnic.

- To help identify workers in an institution, that is a church.
- To educate the 'wayside' artist in the use of contemporary technology.
- To remedy accidents and mistakes in the printing studio.
- To educate the fisherman in the use of colour and art forms chosen.
- To examine the effects of advertisement on consumers and the psychology of consumers in relation to advertising.
- To show the skills that has been acquired in the training so far.
- To enhance skills acquired and package products that will appeal to international markets.
- To enhance knowledge about software and advertisement.
- To enhance knowledge about website designing.
- To improve on photography skills.
- To help give easy location to an organisation or establishment.

Going through the various reasons of students in choosing their works, it can be said that indeed students are in their own ways trying to be of help in one way or the other to the nation. This is seen in their attempt in solving various problems ranging from economic, environmental and educational.

Criteria for assessing students' project works

According to the criteria used by the department to assess the students' project works, the following are looked out for:

1. Statement of the problem and objectives: the students are expected to identify a problem in the environment. It could be in their institution, in corporate Ghana or any other area and give the purposes or aims of solving such a problem.
2. Literature review: students are expected to read published and unpublished books concerning the particular subject they have chosen to work on and discuss different views of people and present them.
3. Methodology: the methodology used to work is also presented that is whether the work is a long essay or practical work.
4. Finding or appreciation: the students present findings here in the case of long essay, or appreciate the project work by giving the title, theme, discuss the principles and elements of design used etc.
5. Conclusions and recommendation: here the student gives conclusion based on the findings and recommend possible solution to the problems.

The distributions of marks are shown in the table 4.

Table 4: Distribution of marks for students' project works

No	Items	Maximum mark	Marks obtained
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1	Statement of Problem/Objective	15	
2	Literature Review	20	
3	Methodology	30	
4	Finding/Appreciation	15	
5	Typing/General Layout	10	
6	Conclusion/Recommendations	10	
7	Total	100	

By these standards the researcher found out the strengths and weaknesses of students project works and observed the processes through which students go about their whole project works.

Still under the second objective of this work which is to examine the works of students to ascertain whether they address pertinent current and future needs of the nation. The lecturers think that the works address the needs of the nation to a large extent because the nation depends much on the economy and since most works deal with packaging and advertising, there is indirect promotion for the sale of products which is of benefit to the nation. Also documentaries, making of books, and so forth, contribute to educating the general public which in all are of use to the nation. That notwithstanding, the scope needs to be broadened to other areas such as health, judiciary and others to help address more needs of the nation.

The researcher found out that to a large extent, the works of students are able to match with the works of other professionals in the field of graphic design, except perhaps

for a few students' project which had problems with finishing (neatness, smoothening, etc).

The third objective was to examine how the works of students are executed. Students encountered problems in the course of working and these included; inadequate funds, limited time and inadequate books, as outlined in Table 5. Students who talked about limited finances were of the view that, it is very expensive to purchase materials for their work. In addition the unavailability of certain contemporary equipment or facilities affected the quality of their finished works. Students who depended solely on the few cameras, scanners and other equipment that the department had got always worked behind schedule. Additionally, because the department had the problem of inadequate recourses, lectures seemed to be more theoretical in instruction resulting in inadequate exposure of students to practical work experiences.

Table 5: Students' problems in the course of working

Problem	Number of respondents
Finance	33
Limited time	13
Inadequate books and information	69

Resources/ facilities/ equipment	44
Inadequate Practical exposure	21

Creativity in students' works

The researcher wanted to find out from students whether their works were in any way related to the existing works that their predecessors had already done, eighty-six of the respondents said no, seventy-eight said yes, there is a relation but not the same and fifteen of them were not sure. This indicates that the creativity aspect of the individual had been developed so much that they were able to execute works that are relatively original in nature.

The value of practical courses on students

The researcher found out from the respondents that they have derived value from practical courses because a greater number of them answered in the affirmative to the question of whether they have derived any value out of the practical courses. This meant that the practical courses being taught help students get skills that they otherwise could not have had. In other words, the value refers to the worth, importance or usefulness which the practical course had on students. That notwithstanding, most of the students who had gotten immense value as well as those who had gotten some value were of the

view that they needed more practice as well as resources regarding facilities and equipment to help them gain better skills. Table 6 shows the responses gotten:

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Table 6: The value that students have gained from practical works

Value	Number of respondents
Immense value	116
Some value	53
Little value	9
No value	1
Total	179

As to whether the practical value of the course has helped the students in any way at all, 143 of them said ‘yes’ even though more had to be done. The remaining 36 said no with varying reasons such as not learning new skills apart from what they knew already, not being able to work independently, and not being exposed to the use of some modern equipment.

Table 7 shows which of the practical courses have the greatest impact on the students. The impact here means the change of behaviour that the students have derived as a result of the practical courses, as stated by Rosenshine (1970) and Eisner (1994). The reasons influencing this impact are: the interest of students, the availability of equipment and how well the practical course is taught.

Table 7: Impact of practical courses on students

Practical course	Number of respondents
Drawing and illustration	27
Packaging and Advertising	48
Printing and Bookbinding	21
Computer Graphics	53
Photography	32

Some difficulties students encounter in the process of executing project works

The third objective is to examine how the works of students are executed. The researcher realized that the learning environment in the department encourages some students to freely discuss their problems and needs with lecturers but does not encourage others. Thus, the data collected showed that 97 students representing 54% are encouraged and 82 students representing 46% are not encouraged. The reasons given by those who were not encouraged are that both students and lecturers have got very tight academic schedules which sometimes do not permit quality time for interaction. Again, meeting places are inadequate that is lecturers do not have their own offices, so some get out of campus as soon as they are done with the day's instruction. Additionally, large numbers of students compared with few lecturers does not allow effective 'one-on-one' supervision between lecturers and students. Last but not the least, a few of the lecturers do not create the conducive atmosphere to become "approached". Students outlined some of the shortcomings of practical works in the department; this is shown in Table 8.

Table 8: Some shortcomings of practical works in the department

Some difficulties encountered by students	Number of respondents
Inadequate practice during practical lessons	30
Inadequate resources /equipment /facilities	84

Inadequate time	18
Inadequate funds	25
Inappropriate storage of practical works	22



Plate 1: The only cameras for the department

The equipment shown above in Plate 1 is an example of the equipment used by the students of the department. The picture shows students working outside during a

photography practical course. A whole department with a student population of about four hundred have got only two cameras at their disposal. This shows that there is the need to purchase more to meet the number of students in the department.

The researcher wanted to find out whether students are able to practice independently, the response shows that a great number of students are able to do so while some of them are not. The responses are as follows:

Table 9: A response of independent practice

Yes	No
132	47
74%	26%

Students work with their supervisors and it is clear that most students representing 74% see their lecturers often with any opportunity available. Below are their responses as to how often they see their supervisors:

Table 10: How often students meet their supervisors

Very often	Often
83	96
46%	54%

On students' assessment on whether they get the necessary help from their supervisors, 163 students representing 91% said 'yes' and 16 of them representing 9% said 'no' in the table 11. Those who said 'no' gave reasons such as difficulty in meeting with their supervisors and being asked to do different projects from what they intended to do.

KNUST

Table 11: Assessment on the help students derive from their supervisors

Yes	No
163	16
91%	9%

The responses the researcher had from the lecturers indicated that before project works are taken up by students, they are asked to choose their own topics based on their interest. The topics are then presented to lecturers for modification and correction before approval. Students who find it difficult in selecting a topic are guided to do so.

When the topics of students are approved, supervisors are assigned based on specialities in various fields of graphic design. Here there are instances where some students prefer certain lecturers to others for their own unstated reasons. It is at this stage that students are taken through Research Methodology but unfortunately, most students

do not take it serious since the course is non-scoring and not examinable. Students then begin their project works working hand-in-hand with their supervisors.

Some students work individually while others work in groups. Group work is dependent on its volume and cost and the average number of students in a group is three. Six (6) out of the ten (10) lecturers found the individual work more effective in terms of commitment and the remaining four (4) found group work more effective and helpful because it helps weak students to improve and also improves team-work among students, the fact that individual write-ups are required ensures cooperation among group members.

Some problems affecting the project works of students

The researcher also found out from the lecturers that most works of students are related to their area of specialisation except a few which are so integrated that students end up doing just a little portion of the whole work. The following are some of the problems outlined by lecturers as affecting the project works of students:

- Inferiority complex on the part of some students who think that they do not match up with university students. This affects their confidence to work since some of the students think that because they did not get the opportunity to enter the university to do degree programmes like their other colleagues they will be looked down upon.
- Financing: The lecturers find some of the works rather challenging when it comes to funding because the students do not work neither do they receive any allowances.

- More commitment from the department regarding helping students to approach industries during their work.
- Inadequate research skills: Until 2010, Research Methodology was taught as a course but it was not examinable so most students did not take it seriously.
- Unavailability of modern equipment
- Some supervisors do not cooperate
- Volume of students' semester work being so much that it affects the concentration of students on their project works.
- Ineffective supervision because of lack of meeting places and large numbers of students.
- People on the field not ready to give information to students regarding their some of the challenges they faced.

Meeting of deadlines for the submission of project works

The researcher wanted to find out whether students are able to meet deadlines for the submission of project works. It was realised that greater numbers of the students are unable to meet deadlines. Some gave their reasons as inadequate time. For this it will be helpful if students are allowed to work on their project topics a bit earlier than what pertains now. That is students start working on their project works the first semester of the final year which is the third year. If students are allowed to start in the second semester of the second year, they will get more time for their project works. Additionally, some of the courses done in the third year can be shifted to the second year so that much

of the periods for the third year will be dedicated to the project works. This will allow ample time for the works hence cutting down the delays. The researcher also found out that most students cooperate with their supervisors except for a few.

What happens to the project works after execution

After project works are marked, the soft and hard copies of the thesis are submitted to the department. Some of the practical works are dispatched to their various sites, that is the purpose for which they were made. An example is Plate 2 –a signage for the Polytechnic’s Fashion Design Department. Unfortunately, others are left outside to the mercy of the weather.





Plate 2: A signage for the Textile Department.

Plate 2 is an example of a project works sent to the site, that is a signage for a department. This is to say that works are made to serve specific purposes. However, others are left in the open outside the department, exposed to the vagaries of the weather.

Influence of attachment on the quality of project works

It was gathered that professional attachment and its contribution to project works, has been of great relevance to students especially those who go to the right places because it exposes them to industries that are well resourced with equipment. Again, students get the chance to work with experienced professionals who are endowed with years of practical know-how, and there is also hands-on practice much of the time. Some students however are unlucky to be assigned duties that do not fall in line with what is required of the programme; this results in the complete waste of time of the students. Supervision of students on industrial attachment has got its own challenges. For instance, sometimes, supervisors come from other departments other than the visual arts or graphic design to with little or no design-teaching experience whatsoever and this does not offer any help to the students. Next motivation for lecturers to be able to supervise effectively is inadequate. This does not encourage the supervisors to give off their best.

Examination of students' project works:

In examining the project works, it can be stated that the works of students match up with works of professionals already in the field. This is because the pictures are shown clearly, the text is readable and information is effectively shared. At a glance, one can understand exactly what the graphic designer wants to communicate to the public. For example, Plate 2 shows a signage for the Textile department and there is effective communication to all who look at the work concerning the identity as well as what goes on in the department; these include the name of the department, the various courses being offered (both practical and theory aspects) and the department's motto. The same can be said about Plate 3 which is a directional chart for the Cape Coast castle. The various locations have

been numbered and keys provided for easy identification. Nevertheless, location 5 appears twice and there is no location for 4 on the chart but the key indicates it. This is a shortcoming the supervisors must note.

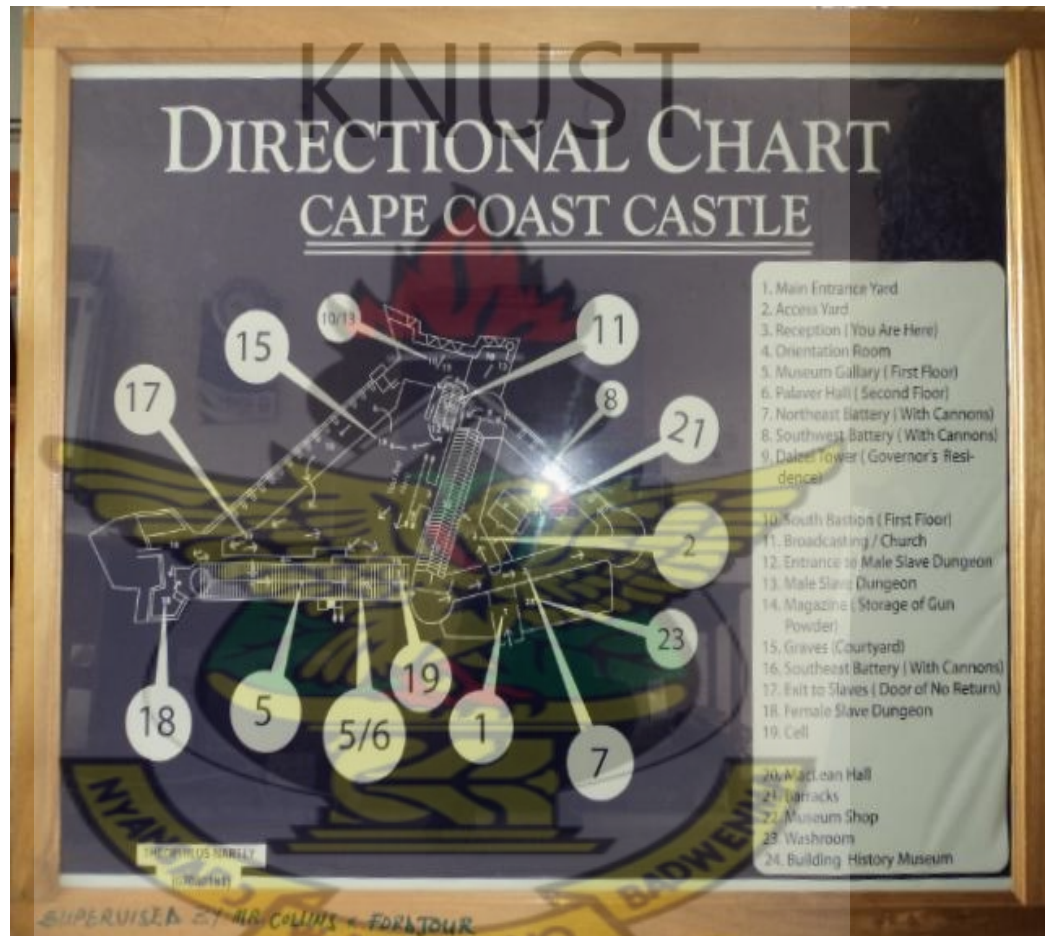


Plate 3: A directional chart



Plate 4: A signage for a salon

Plates 4 and 5 are also very good project works of students serving their purposes as a signage for the institutions' beauty salon and a package for a product. The services of the beauty salon are well spelt out and these are pedicure, manicure, hair cutting and other services in the same way, the ingredients, manufacturing and expiry dates, nutritional value and other information concerning the product have been given.

However, the spellings of 'salon' and 'doughnuts' were overlooked and these must be looked at critically by the supervisors.



Plate 5: A package for doughnuts

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The government has not relented in its efforts to equip all the polytechnics in the country to make them offer tertiary education, emphasising practical skills that are needed to run a productive economy and build a nation. It has been stressed that in order for the above purposes to be achieved, the practical component of polytechnic training involving hands-on experience in industrial arts and other areas would be greatly enhanced. These objectives are laudable and achievable and have immense economic, cultural, social and intellectual values for the industries and the nation as a whole. This is exactly what the department of Graphic Design, Takoradi Polytechnic seeks to do. The development of competent personnel for the industries as far as middle- level manpower is concerned, would help solve the numerous problems confronting Ghana.

The study revealed that substantial headway has so far been made in the achievement of these aims and objectives especially in the sphere of providing self-employment and also providing personnel for the Graphic Design industry because practical works and for that matter project works have been taken seriously. The outputs of students however, depend on their own innate ability to affect the society.

The study showed that the students are exposed to a wide area as far as Graphic Design is concerned. These are photography, packaging and advertising, drawing and illustration, printing and bookbinding and computer graphics. These areas can be used as instruments to affect every topic under health, education, sanitation, agriculture, court

systems and others. Students however, tend to be interested in certain areas neglecting others. For instance, not many students like to work in bookbinding, and drawing and illustration. Again because of the general objective of Polytechnics, that is to train people with technical knowhow for industry, students must be encouraged to take up project works instead of writing thesis reports. Thus students must produce graphic design works instead of thesis report.

The project works of students are of no doubt a great benefit to the nation. Apart from inculcating in the individuals the skills for the graphic design industry, it helps in educating the general public. That is, both literates and semi-illiterates are educated on key national issues. It also helps producers of various items to advertise them, and this in turn helps stimulate the economy. On the other hand, the other aspects that have been neglected should be looked at. The works of students have been found to match to the works of seasoned professionals in the industry. This is an achievement for the department.

The steady increase in the admission of students has not reflected in the acquisition of equipment and the accommodation in the department. Printing equipment, computers and their modern software, cameras and other gadgets are inadequate and this affects practical courses and supervision as well. Increase in the number of students has also affected student – lecturer ratio which affects supervision to a large extent.

The course content and the curriculum were assessed to determine their relevance to the needs of the nation and it was realised that for the right calibre of graduates to be produced upon completion, the course was found to be theoretically-oriented with limited practical skills. That notwithstanding, students were found out to have some value out of

the available practical courses. It was also realised that when it comes to independent practice, just over half of the students are able to work on their own. Thus the rest must be helped through constant practice to be able to be at par with their other colleagues.

The attitudes of present students regarding practical works compared to previous students of the 1990s have changed since the latter were more mature in terms of age and educational background. Therefore, during students' orientation programmes for fresh students, they must be counselled on these attitudes and their self-esteem should be boosted concerning the fact that the Polytechnics and Universities share a similar status.

It was realised that averagely students are unable to meet deadlines for the submission of their project works due to loaded coursework demands. Therefore, topics should be worked on a bit earlier so that students will have more time for their project work.

Motivation for lecturers, in order to supervise students' works, is not adequate. It must be increased in order for the lecturers to adequately supervise the works of students more effectively.

The industrial attachment that students undergo helps them considerably especially for those who find themselves in the right environment with the right responsibilities. Often times, students are given certain responsibilities that do not benefit them directly regarding their courses. In addition to that, supervisors for the attachment are too often not from the Graphic Design department; this does not render the supervision effective because they are not directly related with the area of study.

5.2 Conclusions

Few students, thus about 20.1% undertake works in printing, bookbinding, drawing and illustration. Also students concentrate or work within the same areas namely: education and advertising, neglecting other areas such as health, agriculture and judiciary. Students tend to work in or focus on few areas due to technological advancement and neglect other areas. This, if not corrected, will result in students always turning blind eye toward key issues in the area of health, agriculture, judiciary and other areas which are equally of benefit to the nation as a whole.

The general objective of the department which is to train people with theoretical knowledge, practical skills and visual art thinking is being worked at but more needs to be done about training people with practical skills. Most students find practical courses very helpful except for the fact that they need more practice and equipment to work with. This when done, will have great impact on the project works students produce at the end of their three year course. Greater numbers of the students are able to work on their own. About 26% of them are unable to do so. If additional time and attention is given to practice and extra equipment purchased, it will help in bringing out more competent students with practical skills.

Major problems of students during the course of working regarding project works include; limited time, inadequate practical exposure, finance, inadequate information and inadequate equipment and facilities. Tight schedules of students and lecturers as well as no meeting places render supervision not as effective as it should be. Again, large numbers of students compared to the number of lecturers affect supervision a lot. All these factors contribute to students' inability to meet deadlines.

Some of the finished works of students serves their purpose because they are sent to the right places to be used (example is signage for companies). Others however, are left outside the department in the open, at the mercy of the weather. If this continues, some students may be discouraged to work hard since they will think the works will only end up as waste.

In spite of certain weaknesses concerning places of meeting for students and lecturers as well as large numbers of students as against lecturers, the lecturers are doing their best as far as supervision is concerned. According to the results of students there is improvement in the project works of students and it can be testified that students' finished works are able to match up with the works of graphic designers already in the industry. Unfortunately, the motivation given to supervisors in order to oversee students leaves much to be desired.

5.3 Recommendations

1. Lecturers should collaborate with students to contact firms and corporate bodies in order to come out with solutions to their challenges for a fee. By so doing, challenges of firms regarding practical graphic design works will be met, funds will be generated for the department, research work of lecturers will be boosted and students' project work requirement satisfied. This will in turn broaden the scope of problem-solving for the department. The funds generated could help work on new and modern equipment.
2. In order for effective supervision of project works to be done, more lecturers should be brought on board to help bring down the number of students per lecturer, noting that at the moment there are 16 lecturers and 350 final year

students, not forgetting other responsibilities of the lecturers. Again NGOs, the government, the polytechnic authorities should contribute towards getting more equipment and office accommodation for lecturers. This will go a long way to help supervisors devote more time to students as far as their project works are concerned. Also project topics should be worked on quite earlier than it is being done, so instead of first semester in third year, it should be done in the second semester of the second year. This will give both students and lecturers ample time to work on project works which will also result in students meeting deadlines.

3. Practical project works should be encouraged because of the main vision of the Polytechnic as an institution, thus producing people with technical knowhow for industries. Also, course outlines and time tables should be reviewed to inculcate more practice in all courses so that students will be equipped with the necessary skills for independent work. The general attitudes of students need to be corrected through orientation sessions to let them know how important practice is to the programme they have chosen and also to boost their self-esteem regarding polytechnics and the universities sharing a similar status. This, when done well, will reflect in their attitude towards their practical works and for that matter, their final year project works.
4. It must be emphasised that project works of students must solve specific problems and graphic design items produced should be taken to places for which they were made before students graduate. This will help solve the problem of leaving works at places where they are not needed.

5. The Polytechnic should increase the motivation of project supervisors by appealing to the government for more funds so that they will be encouraged to work more, as far as supervision is concerned.
6. Group as well as individual project works must be encouraged since they both have many advantages. It must be ensured that all members partake in group work.

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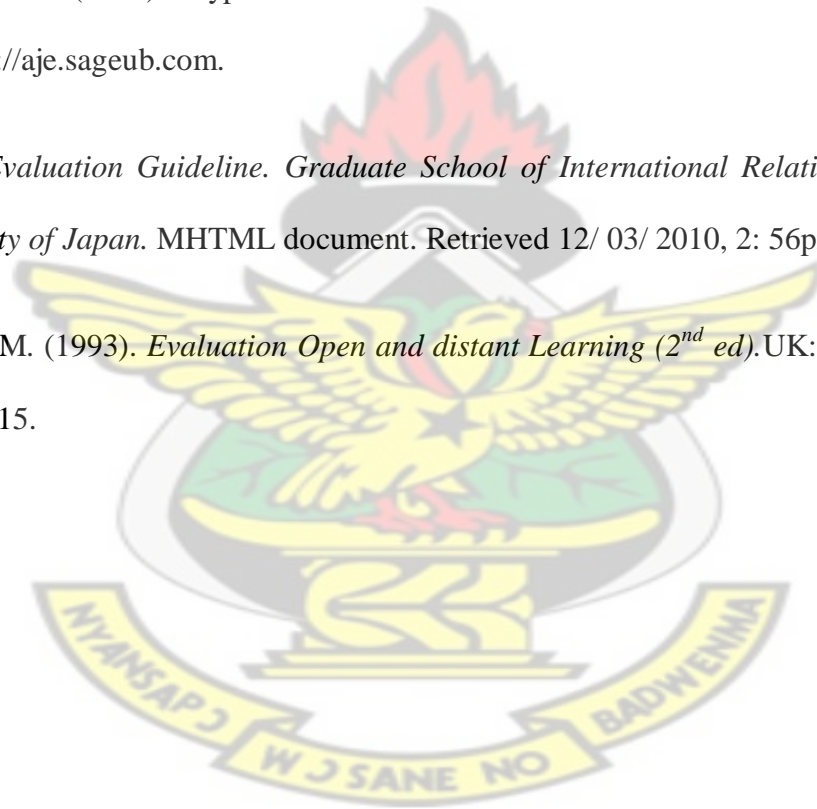
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APPENDIX A

QUESTIONNAIRE FOR TAKORADI POLYTECHNIC FINAL YEAR STUDENTS

This questionnaire is designed to collect information from final year students of the Graphic Design Department, Takoradi Polytechnic. Your answers will remain confidential and only group summary will be reported. Thank you.

Section A

1. What kind of graphic design work are you doing for your final project? Example posters, packaging etc.

.....

2. What is your objective or aim of choosing that particular work?

.....

3. What are some of the problems identified in your area of research?

.....

Section B

4. Who are going to benefit from your project work?

.....

5. How will they benefit from it?

.....

6. Does your work relate to any existing one in the department?

.....

.....

7. What are some of the problems you are likely to encounter in the course of your project work?

.....

8. Of what value has the practical courses been to you?

(a) Of immense value (b) Some value (c) Little value (d) No value

9. Explain your answer

.....

.....

10. Has this value influenced your life in anyway?

.....

.....

11. Which practical course has the greatest impact on you so far regarding skills?

.....

12. Give reasons

.....

.....

13. Does the curriculum provide you with the opportunity to achieving your objective for pursuing the programme as far as practical works are concerned?

Yes []

No []

14. Give reasons

.....

.....

.....

.....

Section C

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15. Does the learning environment in the department encourage students to freely discuss their problems and needs with lecturers?

16. How?

.....

17. What in your opinion are the shortcomings of the practical works in the department?

.....

..

18. Does your project work contribute to national development?

.....

19. If yes, how?

.....

...

20. Can students who graduate from this department practice independently?

.....

21. Do students work with modern equipment that is used in the graphic design industry at the department?

Yes []

No []

22. What in your opinion do you think can be done about tools and equipment in the department?

.....

23. How often do you see your supervisor?

(a) Very often (b) Often (c) Rarely

24. Do you get the necessary help you need from your supervisor regarding your practical work?

Yes []

No []

Explain your answer

.....

25. Do you have any suggestions to help improve practical works of students?

.....

.....

APPENDIX B

INTERVIEW GUIDE FOR LECTURERS OF THE DEPARTMENT OF GRAPHIC DESIGN

1. What are the kinds of project works students do in their final year?
2. When did the practical aspects of the programme start?
3. In your opinion, how has previous and subsequent attitudes of students been towards practical and project works?
4. Has there been any improvement so far?
5. How would you assess the performance of students' practical works from 2004-2010?
6. How do students react before, during and after execution of practical works?
7. Do students work in groups or as individuals?
8. What is your view about individual /group work done by final year students?
9. Are the works of students related to their area of specialisation?
10. What are some of the problems encountered by final year students during the execution of project works?
11. How are the project topics chosen?
12. Do students work under supervision?
13. What are the criteria for marking the project works in the Polytechnic?
14. What happens after the marking of the project works?
15. Are students finished project works able to match with works done by other professionals in the industry?

16. Suggest ways of improving the following:

- a. Selection of project topics
- b. Assigning of supervisors to students
- c. Supervision of project works
- d. Execution of works
- e. Finishing
- f. Any other aspect of the practical works?

17. Do you think the works of students address the current challenges facing the nation?

18. Can students work independently in the graphic design industry after school?

19. Are students able to match with professionals in the industry?

20. Are students able to meet deadlines for the submission of project works?

21. Do students' project works meet the required standards?

22. Are supervisors well motivated to oversee students' project works?

23. Do students usually cooperate with their supervisors?

24. Does the professional attachment done by students reflect in their project works?

25. What are your views on the project works of students from 2004 -2010?

26. What is your comment on the availability of modern tools and equipment to students?

27. Suggest ways of improving project works of final year students?

APPENDIX C

INTERVIEW GUIDE FOR EXTERNAL EXAMINER

1. How long have you been marking the project works of students?
2. What kinds of graphic design works do you mark?
3. What is your impression so far concerning the works?
4. Do the works of students meet the required standards of tertiary institutions?
5. Do you think students' works address pertinent issues related to the nation?
6. Which common problems have you identified in the project works of students in the graphic design department relating to:
 - a. Maturity of students to undertake such tasks
 - b. Course duration
 - c. Supervision
 - d. Any others
7. Do topics chosen by students for their project works have any value to the development of the nation?
8. What is your comment about the finishing of students' project works?
9. Do the works match with other works done by professionals in the industry?
10. In your opinion, how has previous and subsequent results been?
11. Has there been any improvement so far?
12. Do students work in groups or as individuals?
13. What is your view about individual /group work done by final year students?
14. Are the works of students related to their area of specialisation?
15. What are the criteria for marking the project works in the Polytechnic?

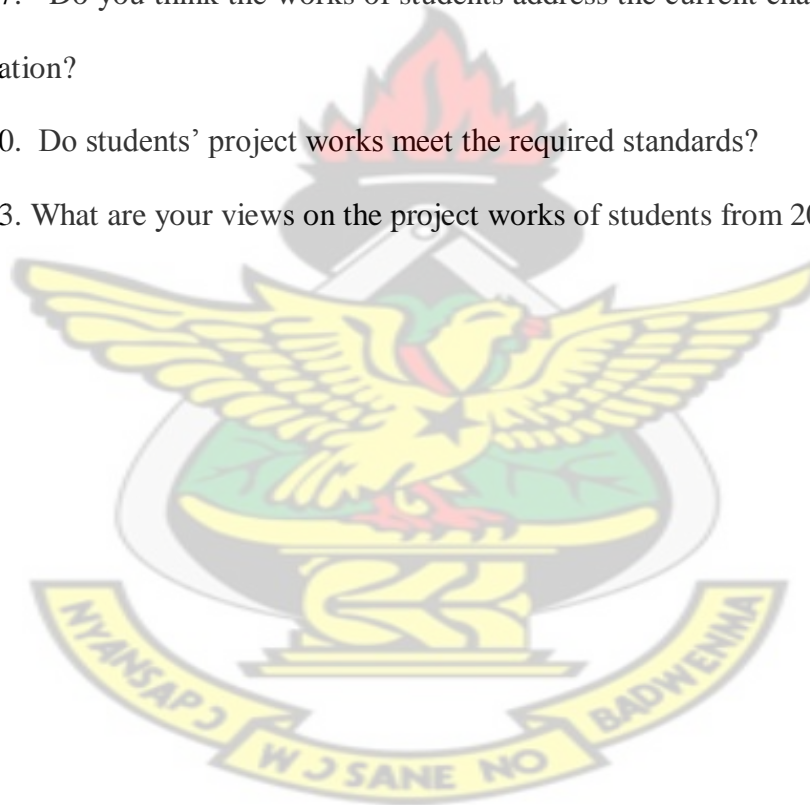
16. Suggest ways of improve the following:

- a. Selection of project topics
- b. Assigning of supervisors to students
- c. Supervision of project works
- d. Execution of works
- e. Finishing
- f. Any other aspect of the practical works?

17. Do you think the works of students address the current challenges facing the nation?

20. Do students' project works meet the required standards?

23. What are your views on the project works of students from 2004 -2009?



APPENDIX D

LETTER TO THE HEAD OF DEPARTMENT, TAKORADI POLYTECHNIC GRAPHIC DESIGN DEPARTMENT

Kwame Nkrumah University of Science and Technology

Department of General Art Studies

Kumasi

4th February, 2011.

The Head of Department

Graphic Design Department

Takoradi Polytechnic

Takoradi

Dear Sir,

A REQUEST FOR STUDENTS' RESULTS

I am a student of the above named institution writing my thesis on the topic, 'Evaluation of project works by HND Graphic Design students of Takoradi Polytechnic'. As part of my work, there is the need to know about the results of students' project works between 2004 and 2009. I would be grateful if the department could be of help to me in this direction. Thank you, in anticipation of your co-operation.

Yours faithfully,

(Bernice Benning)

APPENDIX E

A LETTER TO THE EXAMINER OF THE DEPARTMENT OF GRAPHIC DESIGN DEPARTMENT, TAKORADI POLYTECHNIC

Kwame Nkrumah University of Science and Technology

Department of General Art Studies

Kumasi

25th February, 2011.

The Dean

School of Communication Design

Kwame Nkrumah University of Science and Technology

Kumasi

Dear Sir,

A REQUEST FOR AN INTERVIEW

I am a student of the above department writing my thesis on the topic 'Evaluation of project works by HND students of Graphic Design Programme in Takoradi Polytechnic'. As part of the work there is the need to interview you because of your position as the external examiner, I would be grateful if you could be of help to me in that capacity. Thank you, in anticipation of your co-operation.

Yours faithfully,

(Bernice Benning)

KNUST

