

# Examining the Model of the Curriculum Used by Graphic Design Institutions in Tanzania at Various Levels of Study

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## **Abstract**

This paper examines the model of curricula used by graphic design institutions in Tanzania and proposes more effective means that graphic design institutions could adopt for offering the most appropriate and relevant training in graphic design at certificate, diploma and bachelor's degree levels of education. Most big cities in Tanzania are populated with graphic design work with common errors that reflect the designers' lack of graphic design skills. Most of those designers have received some training in the many computer training centres in these areas due to the huge demand for graphic designers, but they have mostly been trained in some basic computer essentials and information communication technology rather than graphic design per se. Various curricula of different institutions and scholars from different countries are scrutinized in this study.

*Keywords:* Art education, Graphic Design Curriculum, Graphic Design in Tanzania, Model of Curriculum.

## **Introduction**

This paper is an attempt to exchange ideas with graphic design instructors, curriculum developers/planners, academic designers and graphic design institutions on the relevant curricula for training in graphic design. The paper first defines the term graphic design and gives a brief historical development of the discipline. Lastly the paper analyses a sample of the existing curricula and offers suggestions for what constitutes a relevant curriculum.

## **Definition of Graphic Design**

According to Mittler and Ragans (1992), graphic design is a field of art that uses pictures and words to instruct or communicate a specific message or information and does not involve concentrated or complicated images. It is different from the art of drawing or painting, and involves some images which are easily readable and understood. Graphic design has, as its goal, the communication of some specific messages to a group of people, and the success of a design is measured by how well that message is conveyed (Getlein, 2005).

Graphic designers are employed to develop designs that meet their clients' needs, rather than to design things from their personal experience, whereas fine art comes from the artist's inspiration. According to Stoddart (2002), fine art "is work that comes from your personal experience, rather than something that is created for a practical function or the outcome of a specific brief set by someone else."

Poynor (1998) defines graphic design from the point of view of a graphic designer as "... one who creates ideas that are expressed in words and/or in pictures, and generally solves problems of visual communication." Graphic designers actually present alternatives to existing problems by occupying the view from above and handing down master plans for reform. Lupton and Miller (1996) quote Morris's initiatives on the idea of graphic design to the effect that the designer "...stands aside from the mainstream and presents alternative visions."

Katz, et al. (1995) maintain that graphic designers solve visual problems by using the elements and principles of art. The visual problems typically include creating designs for product advertisements, packaging, brochures and letterheads for businesses or corporations.

Graphic design can therefore be defined as the application of images, and sometimes text, to visually communicate specific messages to a wide community of people. Text is used to support images when it seems that the images themselves through their design cannot convey the message successfully. The images and text are known as the elements of design, and they do better when supported by other elements, namely space and colour. Proper application of those four design elements has a major role in solving the problem of visual communication.

### **Historical Background of Graphic Design**

Historically, graphic design has been part and parcel of human existence since prehistoric times although the term 'graphic design' was not used. The term was introduced in 1922 by the American designer, William Addison Dwelling (Aynsley, 2000). Rock art paintings, for instance, which are found on cave walls in central Tanzania, have some characteristics that relate to the graphic design of today. According to Masao (2003), prehistoric rock art paintings can be found on cave walls, floors and ceilings in many parts of central Tanzania, especially Kondo, Singida and Mbulu. The rock art paintings are characterised by simple shapes of figures, which were used to communicate certain meanings, as graphic design does.

The context of graphic design as a visual communication medium was also applied very successfully in the Russian Revolution propaganda for communicating to people who were neither fully literate nor spoke the same language. According to Ades (1986), graphic design was obviously the main means of educating, informing and persuading the people, and was particularly effective in a country whose population was neither fully literate nor united by a single language. Getlein (2005) argues that, through the Industrial Revolution, the invention of faster printing presses and technological development, especially the computer, people's

capabilities have continued to broaden. However, contemporary graphic design has only changed the techniques and procedures for designing, but the intentions have not changed.

Computers have simplified the production of graphic designs. Engineers have invented computerised technology whereby there is plenty of software which helps graphic designers to develop and transform images from their mind into visible form on a computer screen. From there, they can eventually command the printing of the number of printouts they need by just pushing a button. In 1953, Massachusetts Institute of Technology (MIT) labs were used to build experimental computers known as TX-0 and TX-2. This was a series which began with TX before its transition to TX-0 and TX-2. In the late 1950s, MIT's TX-0 and TX-2 computers were used to create interactive computing, and interest in computer graphics began to increase rapidly (Bertoline & Wiebe, 2003). The computer is now both a drawing and painting medium. On the basis of the foregoing facts therefore, it is worth noting that computers have only changed the techniques and procedures for designing, but designers' visual communication intentions have remained unchanged.

Graphic designs are commonly used in Tanzania and elsewhere, and in fact are increasingly flooding many urban areas. Furthermore, works of graphic designers are often displayed in many aspects of daily life, including TV programmes, which are watched by many people and which are occasionally interrupted by commercial advertisements displaying such work on huge signboards and banners alongside the road which people come across on their way to work, road signs warning drivers to give way to pedestrians at zebra crossings and other stop and speed limit signs. Written and/or decorated signs that direct people to their department, office or any other workplace are all the work of graphic designers. Beside outdoor designs, books on office shelves, newspapers and magazines have images and text, which are well arranged by graphic designers to attract readers. During break time, the different utensils used like coffee mugs, teacups or sugar containers have brand names, which are well-designed by graphic designers to catch the attention of users. Additionally, upon coming back home in the evening one receives water and electricity bills which were dropped off during the day, all of which are written on letterheads with logos of their companies, e.g. DAWASCO (Dar es Salaam Water and Sewerage Corporation) and/or TANESCO (Tanzania Electric Supply Company Limited).

Graphic designers have therefore been in great demand in big cities which has resulted in the rapid growth of institutions that train graphic designers in Tanzania. These include the Department of Fine and Performing Arts (FPA) and the School of Journalism and Mass Communication (SJMC) of the University of Dar es Salaam, the University Computing Centre (UCC), Institute of Desktop Publishing (DPI), Institute of Culture and Arts Bagamoyo (TaSUBa), Media One School (MOS) and the Vocational Education Training Authority (VETA).

The rapid growth in the number of training institutions for graphic designers has made it difficult for many people to notice any inadequacies or errors in the work of graphic designers. Nobody monitors the correctness of such designs in terms of choice of colour, the use of images, text and space, or the ideal size that matches universal standards. The aim of this study is therefore to propose more effective ways that designers and artists could adopt for creating such designs. The study further discusses various curricula and proposes an appropriate one for adequate graphic design training at certificate, diploma and bachelor's degree levels of education.

### **Analysis of the Existing Curricula**

In most urban centres such as the city of Dar es Salaam, there are many computer training centres which train young people who are mostly primary and secondary school certificate holders. Such training mostly covers basic computer essentials and information and communications technology (ICT). During their courses that generally last for three to eight weeks, these students just learn how to assemble some ready-made images packaged in computer programs and add text to produce postcards, brochures, fliers and the like. Upon graduation, the students are certified and begin to work as graphic designers. Their design work seen all over the city on huge signboards and banners advertising businesses' products and services has common errors in terms of the colour scheme, space, images, text, rhythm, proportion, variety, emphasis, harmony, unity and balance, which seemingly reflect their lack of skills in the elements and basic principles of graphic design.

Various curricula of different institutions were scrutinized for this study, including the Independent Institute of Education (IIE), Stellenbosch University in South Africa, the Inti International University and Colleges in Malaysia, the College of New Zealand, the Glasgow School of Art in Scotland, Curtin University in Australia, the Academy of Arts and Design, Tsinghua University in China, Collin College, Lorain County Community College and the University of North Texas in the United States of America Curriculum models and principles designed by various scholars, including Hilda Taba, Maria Montessori and Ralph Tyler, were also collected and studied for the purpose of choosing the most appropriate for graphic design programmes in Tanzania.

After thoroughly and critically analysing the various curricula, Ralph Tyler's basic principles of curriculum and instruction were found to be most relevant for Tanzania, based on the fact that these documents analyse, view and interpret the curriculum and instructional programmes. They also make simple structures for delivering and evaluating instruction. Comparatively, the National Council for Technical Education (NACTE) curriculum model, and the Tanzania Commission for Universities (TCU) University Qualifications Framework have the same aspects of Ralph Tyler's principles of curriculum and instruction, which are objectives, entry qualifications, learning outcomes and volume of learning. Likewise, curricula from the Collin College, Glasgow School of Art, Independent Institute of Education, Inti International

University and Colleges, Lorain County Community College, Stellenbosch University and University of North Texas mostly resemble Tyler's principles by having the same aspects used by him for addressing his principles.

## **Objectives**

This study suggests that a proper graphic design curriculum should have an objective or objectives. According to Tyler, objectives are goals that are desired by the school staff. A question of what educational purposes the school should seek to achieve is answered by such objectives. In Tanzania, NACTE has set objectives that colleges and institutions are expected to attain.

The appropriate objective for certificate level should be to prepare students to "be able to apply skills and knowledge at routine level" (NACTE, 2014). At this level, students do not need to concentrate on theories and principles. They only need an introduction to the field of their study and given basic skills. Graphic design objectives at certificate level, therefore, should be based on preparing students to produce simple designs, such as posters, fliers, business cards and road banners, by providing them with some basic operational knowledge and skills.

The Independent Institute of Education emphasizes that their graphic design curriculum seeks to offer basic skills in creative thinking, visual conceptualization, theory and basic research. According to its 2014 prospectus for its graphic design certificate programme, students are introduced to creative thinking, visual conceptualization, theory and basic research. Therefore, students at certificate level are introduced to basic design knowledge and creative skills.

Three of the four certificate level institutions (DPI, MOS, UCC and VETA) from which data for this study were obtained, failed to provide written objectives of their graphic design programme, implying that they did not have any. Only VETA has written objectives which were aimed at providing students with basic routine operational knowledge and skills, and making them competent in addressing design and communication issues. According to the VETA curriculum (2008), the objectives and functions of VETA in relation to the VET system were to establish a system of training which would meet the needs of the economy, meet the labour market demand for employees with trade skills so as to improve productivity of the economy, to promote entrepreneurial skills and on-the-job and apprenticeship training and to upgrade skills. Other objectives were to improve the quality of VET, provide vocational education that would accord with the policy of national socio-economic development, and to enable disadvantaged groups to receive vocational education and training. Further objectives of VETA are to improve the quality and productivity of the nation's economy by providing tailor-made programmes and in-service training, to provide a dual vocational education and training system by combining broad-based basic training, gradual specialisation and practical experience of work, and to promote a flexible training approach and appropriate teaching

methodologies. This study therefore suggests that the objectives of graphic design certificate level should be to prepare students to obtain basic routine operational knowledge and skills for producing simple designs for posters, fliers, business cards and road banners.

At diploma level, the most appropriate objective of a graphic design curriculum in Tanzania would be one that gives students skills and knowledge of facts and theories that will enable them to improve their basic skills and to work on routine and non-routine activities. NACTE (2014) proposes that the objective of offering diploma level training in all disciplines should be to enable students to apply their skills and knowledge to a broad range of routine and non-routine work activities. People with a diploma should be able to explore new ideas and work under minimal supervision. It is expected that diploma students would have completed the basic operational stage which is offered at certificate level, and should thus consolidate their area of study, consequently gaining broader knowledge, skills and competencies. The Collin College graphic design curriculum, for instance, is similar to Tyler's model of curriculum in terms of having an objective, which is to help students improve their basic skills and promote their personal economic development. According to the Collin College prospectus (2014), it aims to provide the workforce with economic and community development initiatives designed to meet local and state-wide needs. Collin College aims to equip students with skills and broad knowledge of theory and facts to make them competent in the area of graphic design.

This study collected data from NACTE and Collin College and visited TaSUBa, which was the only diploma level institution that this study collected data from. TaSUBa had a written objective, which was to enable students to know some necessary facts and theories in order to improve their ability to work on non-routine jobs. According to NACTE's policy, the objective of offering a diploma in any programme should be to enable students to apply their skills and knowledge to routine and non-routine activities. Collin College's objective, however, is to enable students to improve their basic skills and knowledge of theory and facts for personal economic development.

The author therefore suggests that graphic design institutions which offer the programme at diploma level should aim to prepare students to obtain knowledge on facts and theories to improve their basic skills and to enable them to work on non-routine activities. That should be their main objective.

In the case of bachelor's degree level of studies, according to the Tanzania Commission for Universities (2014) (TCU), the objective of institutions' general curricula at bachelor level should be to equip students with advanced knowledge, skills and competencies in their chosen discipline, field of work or study. Likewise, the curricula should encourage a critical understanding of theories and principles and the ability to work independently. Similarly, the University of North Texas's curriculum for Communication Design (graphic design) is the same as TCU's framework, which aims to produce graphic designers with conceptual thinking skills and the ability to professionally solve problems relating to visual communication. According to the University of North Texas's prospectus (2012), its Communication Design programme is

designed to produce effective conceptual thinkers and creative problem solvers using art and graphic design.

The FPA and SJMC of the University of Dar es Salaam were used for collecting data for this study. They both have well-written objectives and both offer training at bachelor level. After visiting a number of objectives, this study suggests that the appropriate objective of a graphic design curriculum at bachelor level should be to equip students with advanced knowledge and skills to enable them to solve visual communication problems. This is largely similar to the objectives of the FPA and SJMC, which put emphasis on providing students with advanced knowledge, skills and competences to enable them to solve problems of visual communication by improving their ability to use colour, image, space and text together and reach a visual communication solution that is understandable by the target group.

Table 1 presents the objectives that are proposed after analysing various graphic design curricula of different institutions, curricula models, principles and frameworks.

Table 1

*Proposed objectives and entry qualifications for Graphic Design programme*

	<b>Certificate</b>	<b>Diploma</b>	<b>Bachelor</b>
<b>Objectives</b>	To prepare students to obtain basic routine operational knowledge and skills to produce simple designs, such as posters, fliers, business cards and road banners.	To prepare students to obtain skills and knowledge on facts and theories to improve their basic skills and enable them to work on non-routine activities.	To prepare students to obtain advanced knowledge, skills and competences in graphic design with a critical understanding of the language of art and the principles of design, and make them think conceptually, and professionally solve problems of visual communication.
<b>Entry Qualifications</b>	<ul style="list-style-type: none"> <li>• Certificate of Secondary Education with four passes at D grade</li> <li>• Vocational Education and Training Authority graduates level II and/or equivalent.</li> </ul>	<ul style="list-style-type: none"> <li>• An advanced Certificate of Secondary Education with at least a pass at C grade (Principal pass) in Fine Arts subject; and two Subsidiary level passes or equivalent.</li> <li>• A portfolio of three works of the candidate's graphic design.</li> </ul>	<ul style="list-style-type: none"> <li>• Principal level passes (C grade) in Advanced Certificate of Secondary Education, one of which should be a Fine Arts subject, or;</li> <li>• Diploma with relevant graphic design course, or equivalent, and;</li> <li>• A portfolio of the candidate's best five or more works of graphic design.</li> </ul>

*Note.* Adapted from Institutional prospectuses, NACTE, 2014 and TCU, 2012.

The table presents the proposed curricula model for graphic design institutions in Tanzania. The proposed curricula model, which was developed from a survey of various institutions'

curricula models, principles and frameworks, was used by this study as a yardstick to measure the appropriateness of the curricula used by graphic design institutions in Tanzania.

### **Minimum Entry Qualifications**

The term “Entry qualification” is used by NACTE and TCU to determine the education level that qualifies students to attend courses at certificate, diploma or bachelor level. Admitting students according to their education level enables them to learn within their range of understanding as most instructors usually begin at levels relevant to the educational background of their students. Certificate students, for instance, would be grouped as one category, and their courses planned according to their level of understanding. Similarly, diploma and degree (bachelor) students are respectively grouped in relevant categories. The question of ‘what educational experiences should be provided in order to attain these purposes’ is thus answered by setting the entry qualifications. According to Tyler (1949), institutions need to decide on the type of educational experiences that need to be provided in order to reach educational goals or attain given objectives. Course instructors use certain principles to decide on the educational or learning experiences. One of Tyler’s principles emphasises that the reactions desired should be within the students’ experience, which should be appropriate to their present attainment so that the curriculum is appropriate and effective. For example, if the learning experience involves types of behaviour which the students are not yet able to produce, the purpose of that experience fails. Students therefore have to be admitted according to their education level. A form four certificate holder, for instance, cannot be admitted to a master’s degree course together with bachelor degree graduate students because he/she is not yet capable of catching up with graduate/degree studies. Indeed form four students’ exposure to most things in their area of study is very limited compared to bachelor students. Combining the two groups with different education levels would therefore confuse course instructors as the latter would not know where to begin. If they begin with the basics so as to favour the form four leavers or begin at an advanced level in order to favour the students at bachelor level, the outcome will disadvantage one group or the other. Indeed students would do better if they were admitted to a class in which all of them are at the same level of understanding. However, slight differences among students cannot be ruled out but they can be easily dealt with if the students are almost at the same level of understanding and instructors go at the students’ pace throughout the course.

On the basis of the aforesaid principles, minimum entry qualifications which are appropriate to any institution in Tanzania that offer or plans to offer graphic design courses at certificate level should be Certificate of Secondary Education with at least four passes at D grade or above, or VETA graduates, or an equivalent qualification from an authorized institution. Both NACTE and TCU have set entry qualifications for certificate, diploma and bachelor levels. These qualifications are similar to those set by NACTE, i.e. Certificate of Secondary Education (Form four) with at least four passes at D grade, Professional Technician Level II or equivalent.

Although both NACTE and TCU have set entry qualifications for certificate, diploma and bachelor levels, some institutions have not yet set minimum entry qualifications. These include



three certificate level institutions (UCC, DPI and MOS) which were involved in this study. Of the four certificate level institutions covered in the study however, only VETA had a minimum education entry requirement for its candidates, which was Professional Technician level II.

For diploma level, this study proposes that any candidate who wants to study graphic design at diploma level in Tanzania should meet the general entry requirements of the institution to which he/she wishes to be admitted. On top of the general entry requirements, the graphic design candidate should possess Advanced Certificate for Secondary Education (ACSE) with at least one principal pass at grade C and two passes at subsidiary levels or equivalent. The candidate should also present a personal portfolio of at least three pieces of graphic design work.

Entry qualifications set by TCU for ordinary diploma studies include possession of an Advanced Certificate for Secondary Education with at least one pass at grade C (principal pass) and two passes at subsidiary level in the subjects relevant to the programme he/she intends to study, and/or possession of a Professional Technician Level II Certificate or equivalent.

The Collin College curriculum needs a candidate to have completed high school. According to the Collin College prospectus (2014), an official high school transcript with American College Test, Scholastic Assessment Test, State of Texas Assessment of Academic Readings or Texas Assessment Knowledge and Skills test scores is required. High school in the United States of America means the final two years of secondary education. However, the Oxford Student's Dictionary (2001) defines high school as a school for children aged 13-18. Collin College therefore admits candidates with at least advanced secondary or high school education, and consequently reflects the aspects of Tyler's basic principles of curriculum and the TCU framework for setting entry qualifications.

Likewise, the TaSUBA in Tanzania, which offers diploma courses and which was involved in this study, has set entry requirements, which include a minimum of secondary education with four passes at D grade or equivalent. It was observed however that a portfolio was not required as an additional entry requirement at TaSUBa.

In the case of bachelor's degree entry qualification, according to TCU, students are required to have at least an ordinary diploma, advanced certificate of secondary education (Form six) or equivalent in order to qualify for admission to a bachelor degree programme. Observations at the University of Dar es Salaam's FPA and SJMC during this study revealed that they offer courses with aspects of graphic design at bachelor level, and adhere to the minimum entry requirements but do not require submission of applicants' portfolios before joining their graphic design programme. The Glasgow School of Art in Scotland, on the other hand, requires higher qualifications than those of TCU for admitting applicants to its Art in Graphic Design bachelor degree programme. Basically, applicants, specifically from Tanzania who wish to study Communication Design at the Glasgow School of Art are required to have successfully completed and been awarded Advanced Level Certificate of Secondary Education, with at least

two passes at C grade as the first step. They are also required to include their design work portfolio in the application documents in order to make the letter complete (Glasgow School of Art prospectus, 2014).

### **Learning Outcomes**

According to the information gathered from curricula models, principles and frameworks of various institutions, learning outcomes can be defined as the organisation of learning (Tyler, 1949). In organising such learning experiences, the author proposed a style called *vertical organisation*, in which academic grades are arranged vertically in sequence from lower to upper grade, in line with students' levels, such as first year, second year and third year. However, the criteria of sequence should grow broader and deeper from one level to another, rather than recurring over and over at the same level. In this way, academic gaps can be clearly seen between first, second and third years of study.

On the other hand, *horizontal organisation* occurs if the experience of one discipline to another is provided with less concern about academic level. Horizontal organisation helps students to integrate their views on the elements they deal with. A good example can be seen in graphic design programmes where students develop better skills when the programme taught is integrated with other fields, such as Painting, Drawing, Marketing and Art Promotion and Management, than when it is taught as an isolated discipline.

Observation in this research revealed that the TCU approved three processes of learning outcomes, i.e. knowledge, skills and competence in different academic levels (vertical organisation style). Under this style, the knowledge, skills and competence of third-year students should be more advanced than that of second and first-year students.

According to the NACTE director of curriculum development and assessment however, the Council has not set learning outcomes for institutions that offer graphic design at certificate level, in terms of knowledge, skills and competence. Instead, any institution which needs some learning outcomes has to set its own according to the nature of its courses, which should reflect NACTE's general objective. This is consistent with Tyler's model of curriculum, which suggests that an institution should provide some learning experiences that are likely to attain the given purpose or objectives, and thus such learning experience refers to the interaction between the learner (students) and the external conditions in the environment to which they can react (Tyler, 1949). The author further suggested that the role of instructors should be to establish a good learning environment for students by involving features which will attract their attention. Additionally, the author suggested that qualified instructors should know about students' backgrounds and predict those situations that will bring about the kind of reaction which is essential for the learning desired. Once the institution is established, it should present the outcomes to NACTE for accreditation, after which the outcomes are approved, become official and are available for other institutions that might need them in future. At the time of this study

however, there was no record of any institution in Tanzania that had presented its graphic design learning outcomes to NACTE.

### **Proposed courses for appropriate Learning Outcomes**

#### *Certificate Level*

Graphic design at certificate level should be a foundation programme in the field of graphic design. Students should be introduced to fundamentals of various courses such as Drawing, Painting, Marketing and Art Promotion that are relevant and required in the graphic design programme. Students should be given confidence and encouraged at this level to explore some key techniques of visual expression with components in Drawing, Painting and Principles of Design. On completion of the programme, students need to be able to appreciate the visual arts and cultural values, which makes them ready for further studies or career options. The Independent Institute of Education certificate programme (2014), "...introduces students to creative thinking, visual conceptualization, theory and basic research." The programme combines theory and practical skills to balance the skills needed in the programme.

In order to have successful learning outcomes in Tanzania, graphic design institutions should teach practical and theory-based courses. Theory-based courses would expose students to different theories and principles of various areas of designing. The practical courses would give students a chance to research and practise such principles, and experience the outcomes of the research. Students at certificate level should be taught the following listed courses at fundamental level, and go deeper as they advance to the diploma and bachelors levels, constituting vertical organisation.

This study suggests that the practical courses that should be taught are Introduction to Computer-Aided Design, Fundamentals of Designing, Fundamentals of Drawing, Introductory Painting, Introductory Photography, Fundamentals of Portfolio Development and Typography.

An introductory course in Computer-Aided Design trains students in how to implement their design skills with the aid of computer software. It is proposed that design programs such as Adobe Photoshop, Illustrator and After Effects should be taught in this course. Using such programs, students need to be taught how to produce computer graphics, computer illustrations, digital imaging and digital publishing and be given some fundamentals of website design. A course on Fundamentals of Designing is proposed to involve various areas such as advertising, branding, book formation, graphics, packaging and posters. A course on Fundamentals of Drawing should cover the areas of creative drawing, illustration techniques, storyboard, three-dimensional drawing and still life and life drawing. Introductory Painting should make students practise the colour theory they are taught in class.

This study also proposes that graphic design students at certificate level should have a course on Introductory Photography, which shows them how to take good pictures at different angles specifically for design use. Students should also be prepared to develop their personal

portfolios through a course named Fundamentals of Portfolio Development, which should teach students how to develop and show their portfolios when they apply for further studies or seek employment. Typography prepares students to be aware of different types of font and font sizes, and where and when to apply them. At certificate level, this course should only introduce students to the basic use of different types of font and font sizes.

Theory courses are proposed by this study to be included in graphic design programmes. The courses would be on Art Management, Elements of Communication Skills, Principles of Visual Communication and Print Media. The Art Management course at certificate level should prepare students at the initial stage to direct and run minor projects under supervision. Elements of Communication Skills should give students better oral communication ability, which would help these future graphic designers in their career to communicate well with clients. It should be noted that every design project begins with a statement from the client. A graphic designer should be able to understand the client's statement and react according to the client's expectations. The course on Elements of Communication Skills is made up of various communication areas, such as communication theory, composition, creative writing, foundation communication and speech communication.

The Principles of Visual Communication course should prepare students to produce graphics which can communicate properly their intended meaning. The Principles of Visual Communication course should cover the elements and principles of design and concept development techniques. The course on Print Media should introduce students to the world of printing and the challenges they will face as graphic designers.

Table 2 summarises the proposed practical and theory courses to be taught at the certificate level of education and their areas of concentration. The proposed courses are developed from a survey of various institutions' curricula models, principles and frameworks, and were used as a yardstick to measure the appropriateness of the curricula used by graphic design institutions in Tanzania.

Table 2

*Certificate level model programme adopted from various Graphic Design institutions*

<b>Practical Courses</b>	<b>Areas of Concentration</b>
Introduction to Computer-Aided Design	<ul style="list-style-type: none"> <li>• Introduction to Computer Graphics</li> <li>• Computer Illustration</li> <li>• Digital Imaging</li> <li>• Digital Publishing</li> <li>• Fundamentals of Website Design</li> </ul>
Fundamentals of Designing	<ul style="list-style-type: none"> <li>• Introduction to Advertising</li> <li>• Branding, Book Formation</li> <li>• Graphics; Packaging Design</li> <li>• Poster Design</li> </ul>
Fundamentals of Drawing	<ul style="list-style-type: none"> <li>• Introduction to Creative Drawing</li> <li>• Illustration Techniques</li> <li>• Storyboards; Three-Dimensional Drawing</li> <li>• Still Life Drawing; Life Drawing</li> </ul>
Introductory Painting	<ul style="list-style-type: none"> <li>• Introduction to Colour Theory</li> </ul>
Introductory Photography	<ul style="list-style-type: none"> <li>• Introduction to Digital Photography</li> </ul>
Fundamentals of Portfolio Development	<ul style="list-style-type: none"> <li>• Developing a personal portfolio</li> </ul>
Typography	<ul style="list-style-type: none"> <li>• Introduction to Types and sizes of Fonts</li> </ul>
<b>Theory Courses</b>	<b>Areas of Concentration</b>
Art Management	<ul style="list-style-type: none"> <li>• Directing</li> <li>• Undertaking Minor Projects</li> </ul>
Elements of Communication Skills	<ul style="list-style-type: none"> <li>• Communication Theory</li> <li>• Fundamentals of Creative Thinking</li> <li>• Composition; Foundation Communication</li> <li>• Speech Communication</li> </ul>
Principles of Visual Communication	<ul style="list-style-type: none"> <li>• Elements of Design</li> <li>• Principles of Design</li> <li>• Concept Development Techniques</li> </ul>
Print Media	<ul style="list-style-type: none"> <li>• Printing Techniques</li> </ul>

*Note.* Adopted from "Lorain County Community College," 2014, One Year Technical Certificate – Curriculum Code 4101, "Independent Institute of Education," 2014, Higher Certificate in Art and Design curriculum, "College of New Zealand," 2014, Certificate in Design and Arts (Foundation) curriculum, "Inti International University & College," 2014, Diploma in Graphic Design: Programme structure.

### ***Diploma Level***

At diploma level, students should be given detailed knowledge of key areas and current issues of graphic design in particular and its interaction with related disciplines. On graduation, students should be able to gather and analyse information relating to a visual communication problem, and present a plan on how to solve such a problem using traditional style (colour and black and white sketches) and computer-aided design rendering. At this level, students should be equipped with, "a detailed knowledge of some key areas which may include some knowledge on current issues in specialized areas", Tanzania Commission for Universities (2014:18). Students should be equipped with knowledge and understanding of the scope and

main areas of the subject(s) and its interaction with related subjects. The TCU emphasizes that knowledge of the subject being taught and its main areas is essential, especially how it interacts with other subjects that are related. Learners should also be equipped with skills that will enable them to gather, analyse and present an idea relating to the problem of visual communication since they are familiar with essential theories and principles. The use of ICT is also emphasized in this process. On completion of their studies, students should be competent in using their knowledge and skills to discuss problems professionally with evidence in their respective areas. According to the TCU, “any holder of a Diploma Certificate will demonstrate and use the acquired knowledge, understanding and skills to critically evaluate and formulate evidence-based arguments and identify solutions to clearly defined problems” Tanzania Commission for Universities (2014:18). A graphic design graduate in this case should be able to argue, for instance, why he/she applies a certain colour or font on his/her design.

At the level of diploma, three more courses should be added which are theory based, intending to strengthen the thinking capacity of diploma level students. The additional courses would be Fundamentals of Animation, Critical Thinking and Marketing the Arts.

Fundamentals of Animation should encourage students to explore more drawing techniques and produce images for film makers. Critical thinking should expand students’ conceptual thinking capacity on matters relating to visual communication for different compositions. Marketing the Arts, which should be taught alongside fundamentals of marketing, art promotion and personal financial planning, should prepare students who wish to open design firms on completion of their studies, to become successful entrepreneurs.

The courses on History of Graphic Design, Art Management, Introduction to Computer-Aided Design, Elements of Communication Skills, Fundamentals of Designing, Fundamentals of Drawing, Introductory Painting, Introductory Photography, Fundamentals of Portfolio Development, Typography and Principles of Visual Communication, which are taught at elementary level for certificate students, should now be taught at the intermediate level. More hours are proposed to be invested in the courses so as to give students more time to understand and practise what they have learnt. Depending on how deep the students need to go into the content, some courses at diploma level should be split into two parts to make two courses, i.e. fundamental and intermediate. Table 3 presents the courses and shows how some of them are split to make two courses.

Table 3. Diploma level model programme as adopted from various Graphic Design institutions

Practical Courses	Areas of Concentration
Drawing	<ul style="list-style-type: none"> <li>• Still Life Drawing</li> <li>• Life Drawing</li> </ul>
Intermediate Drawing	<ul style="list-style-type: none"> <li>• Creative Drawing</li> <li>• Illustration Techniques</li> <li>• Storyboard</li> <li>• Three-Dimensional Drawing</li> </ul>
Painting	<ul style="list-style-type: none"> <li>• Colour Theory</li> </ul>
Intermediate Painting	<ul style="list-style-type: none"> <li>• Image Making</li> </ul>
Sales Designing	<ul style="list-style-type: none"> <li>• Advertising</li> <li>• Graphics</li> </ul>
Brand Designing	<ul style="list-style-type: none"> <li>• Branding</li> <li>• Book Formation</li> <li>• Packaging</li> <li>• Poster</li> </ul>
Book Formation	<ul style="list-style-type: none"> <li>• Book Designing and Formation</li> </ul>
Digital Production	<ul style="list-style-type: none"> <li>• Computer Graphics</li> <li>• Computer Illustration</li> <li>• Digital Imaging</li> </ul>
Digital Publishing	<ul style="list-style-type: none"> <li>• Website Design</li> </ul>
Typography	<ul style="list-style-type: none"> <li>• Application of Fonts</li> </ul>
Digital Photography	<ul style="list-style-type: none"> <li>• Evolution of Photography</li> <li>• Modern Photography</li> </ul>
Portfolio Development	<ul style="list-style-type: none"> <li>• Developing a portfolio for designers</li> </ul>
Fundamentals of Animation	<ul style="list-style-type: none"> <li>• Introduction to Animation</li> </ul>
Theory Courses	Areas of Concentration
Visual Communication Skills	<ul style="list-style-type: none"> <li>• Concept Development Techniques</li> </ul>
Intermediate Visual Communication Skills	<ul style="list-style-type: none"> <li>• Elements of Design</li> <li>• Principles of Design</li> </ul>
Art Management	<ul style="list-style-type: none"> <li>• Art Directing</li> <li>• Major Projects</li> </ul>
Essentials of Communication Skills	<ul style="list-style-type: none"> <li>• Communication Theory</li> <li>• Foundation Communication</li> </ul>
Advanced Communication Skills	<ul style="list-style-type: none"> <li>• Composition</li> <li>• Speech Communication</li> </ul>
Marketing the Arts	<ul style="list-style-type: none"> <li>• Personal Financial Planning</li> <li>• Fundamentals of Marketing</li> <li>• Art Promotion</li> </ul>
Critical Thinking	<ul style="list-style-type: none"> <li>• Essentials of Critical Thinking</li> </ul>
History of Art	<ul style="list-style-type: none"> <li>• History of Art</li> <li>• History of Graphic Design</li> <li>• Art Appreciation</li> </ul>

Note. Adopted from "Collin College," 2014, AAS-Graphic Design curriculum, "Inti International University & College," 2014, Diploma in Graphic Design: Programme structure.

### *Bachelor Level*

At bachelor level, detailed knowledge is initiated, which means instructors need to go deeper in the courses or subjects they teach. Most courses that are lightly taught at diploma level should now be taught more heavily at bachelor level. In other words, the number of bachelor degree courses needs to be narrowed down to their specializations and taught deeply and in more detail. A critical understanding of essential theories, principles and concepts of subject(s) by students is required. This is the stage when graphic design students are thoroughly taught about colour theory and principles of design. Students need to be equipped with skills that will enable them to explore new ideas beyond their routine practice. The TCU proposes that, "Graduates of Bachelor degree will have well developed skills for the gathering, evaluation, analysis and presentation of information, ideas, concepts and quantitative and/or qualitative data, drawing on a wide range of current sources." Tanzania Commission for Universities (2014:15). The graduates should have the capacity to present what they gather, by critically evaluating and analysing their ideas. They should be competent in filtering the information they gather and present it in a specialized and advanced manner.

At bachelor level, it is proposed that four more courses should be added to those taught at diploma level. These courses would be Art and Social Sciences, Culture, Sociology and Psychology. These additional courses would give students the ability to understand culture, psychology and the behaviour of different people, who are likely to be their clients they will be interacting with in their day-to-day tasks as graphic designers. By understanding the cultural background of their clients, graphic designers will be in a better position to properly respond to their expectations. On top of that, bachelor degree students should be taught almost the same study areas of concentration as diploma students, but at a more advanced level, with more learning hours. At bachelor level, most of these study areas of concentration would be taught as full subjects. For instance, the areas of advertising, branding, book formation, graphics, packaging and posters in a course on designing would now be taught as subjects called Advertising and Poster Designing, Branding and Packaging, and Book Designing and Formation.

Table 4 presents the graphic design programme at bachelor level, and shows clearly how the study areas of concentration at diploma level now stand as full courses.



Table 4 Bachelor Degree Model Programme adopted from Course Programmes at various Graphic Design institutions

No	Courses
1	Life and Still Life Drawing
2	Illustration Techniques and Creative Drawing
3	Three-Dimensional Drawing
4	Storyboard
5	Image Making (Painting)
6	Colour Theory (Painting)
7	Applied Design (Elements and Principles of Design)
8	Typography
9	Communication Theory and Foundation Communication
10	Advanced Photography
11	Concept Development Techniques
12	Financial Planning
13	Art and Social Sciences
14	Composition
15	Computer Graphics and Illustrations
16	Book Designing and Formation
17	Advanced Critical Thinking
18	Art Directing
19	Psychology
20	Sociology
21	Speech Communication
22	Culture
23	Advanced Website Design
24	Advertising and Poster Designing
25	Marketing and Promotion of the Arts
26	Special Projects
27	Intermediate Animation
28	Major Projects
29	Branding and Packaging
30	Intermediate Portfolio Development
31	History of Art
32	History of Graphic Design
33	Electives

Note. Adopted from "Glasgow School of Art," 2014, Art and Design Curriculum, "University of North Texas," 2014, BFA Communication Design Curriculum, "Stellenbosch University," 2014, Visual Communication Design Curriculum, "Curtin University," 2014, Creative Advertising and Graphic Design Major Curriculum, "University of Tshinghua," 2014, Visual Communication Design Curriculum.

### Volume of Learning

The volume of learning that qualifies students to enter various academic levels is set by NACTE and TCU, and is based on the number of study hours successfully covered for each course. A credit, according to NACTE (2013) is a tool for measuring and expressing learning equivalence, and is awarded as evidence of learning achievement. It is derived through estimating notional learning time. A single credit is equivalent to 10 hours of study. According to NACTE (2013), diploma or bachelor degree students are required to have accumulated some credits which are

measured by the number of accumulated study hours before they are awarded a diploma or bachelor degree.

Based on number of studying/teaching hours, the volume of learning at the ordinary diploma level is four semesters (two years) with 240 credits as the minimum (NACTE, 2013; TCU, 2014). Academic years for higher learning institutions in Tanzania usually begin in September for the first semester which ends in February the following year, while the second semesters begin in February and ends in June the same year, followed by the long vacation until September, when another academic year begins.

As regards bachelor degree courses in Tanzania, the volume of learning set by TCU is a minimum of three years (six semesters) with 360 credits (TCU, 2014). The volume of learning in higher learning institutions differs from one country to another. In the United States of America, for example, the University of North Texas general undergraduate programme lasts for three and a half years at bachelor level. According to the University's prospectus (2014), the undergraduate curriculum is a three-and-a-half year sequence of studio coursework. However, the Communication Design (Graphic Design) programme at this University lasts four years, commonly known as freshman, sophomore, junior and senior for the first, second, third and fourth years, respectively.

At Stellenbosch University (South Africa) the Visual Communication Art (Graphic Design) programme at bachelor level lasts four years, and students are required to complete a total of 560 credits.

In Tanzania, the FPA and the SJMC, which operate under the University of Dar es Salaam, adhere to the University's system in which students need to have 360 credits in order to be awarded a bachelor degree. However, neither institution has a graphic design programme, but it is a component of another programme. At the former school for instance, students are obliged to study Fine Art in which graphic design is included.

This study proposes that eventually a certain volume of learning at different education levels will be required to qualify students to receive a graphic design certificate, diploma and/or bachelor degree. The number of credits attained by graphic design students will need will be at least 120 for a certificate, 240 for a diploma and 360 for a bachelor degree.

## **Evaluation**

Although many institutions approve students for graduation after they have accumulated the required number of credits (e.g. 360 for a bachelor degree in Tanzanian institutions of higher learning), this alone will not determine whether students will complete their programmes successfully. Apart from accumulating credits, institutions that train graphic designers in Tanzania should have a way of evaluating the progress of their students to determine whether or not there has been any improvement. Tyler (1949) goes beyond the point of accumulating credits, and introduces an evaluation process, the main reason being to see if there have been

any changes in the knowledge of students. The author further argues that evaluation should involve more than a single appraisal, as one should be at the beginning of learning and the other at the end of learning to see if there have been any changes.

Indeed a good way to know whether or not students have improved is to evaluate their progress. As far as possible, they should be evaluated in the middle and at the end of each semester. This should determine the nature of the course and how much has been taught and understood at the time of the evaluation. Using a written examination would be a better means of evaluating theory-based courses. However, practical courses should be evaluated through students meeting the criteria set by the course instructors, such as completion of assignments and projects in a given time by following the instructions, reflecting a proper application of the elements and principles of design.

### **Proposed Graphic Design Curricula Models**

This study, as seen in Tables 5, 6 and 7, proposes the most appropriate certificate, diploma and bachelor graphic design courses that should be included in each of the programmes.

#### ***Certificate Programme***

Table 5 shows the proposed one-year certificate programme with courses that should be taught at certificate level. The courses are arranged in two semesters and the list shows which courses should be taught in the first semester and which courses should be taught in the second semester.

Table 5

*Proposed model for a one-year Graphic Design certificate programme*

<b>Semester I</b>	
Courses	Drawing
	Painting
	Designing
	Introductory Photography
	Principles of Visual Communication
	Elements of Communication Skills
<b>Semester II</b>	
Courses	Computer-Aided Design
	Typography
	Print Media
	Fundamentals of Website Design
	Art Management
	Portfolio Development

#### ***Diploma programme***

Table 6 shows the proposed two-year diploma programme with courses that should be taught at diploma level. The courses are arranged in four semesters, whereby each year has two

semesters. The table lists the courses - first-year courses and second-year courses. There are also categories of first semesters for both years, as well as second semesters for both years.

Table 6

*Proposed model for a two-year Graphic Design diploma programme*

<b>First Year</b>	
Semester I	Semester II
Drawing	Intermediate Drawing
Painting	Intermediate Painting
Sales Designing	Brand Designing
Fundamentals of Visual Communication	Intermediate Visual Communication
Essentials of Communication Skills	Advanced Communication Skills
<b>Second Year</b>	
Semester I	Semester II
Typography	Digital Publishing
Digital Production	Marketing the Arts
Art Management	Critical Thinking
Fundamentals of Animation	Book Formation
Photography	Portfolio Development
History of Graphic Design	

### **Bachelor programme**

Table 7 presents the proposed bachelor degree programme, which clearly shows the courses in categories of semesters, and proposes which category should be taught first and which one should follow.

Table 7

*Proposed model for a four-year Graphic Design bachelor degree programme*

First Year	
Semester I	Semester II
Life & Still Life Drawing	Illustration Techniques & Creative Drawing
Three-Dimensional Drawing	Storyboard
Colour Theory (Painting)	Image Making (Painting)
Applied Design (Elements & Principles of Design)	Typography
Elective	Elective
Second Year	
Semester I	Semester II
Communication Theory & Foundation Communication	Advanced Photography
Concept Development Techniques	Financial Planning
Art & Social Sciences	Composition
Computer Graphics & Illustrations	Book Design & Formation
Elective	Elective
Third Year	
Semester I	Semester II
Advanced Critical Thinking	Art Directing
Psychology	Sociology
Speech Communication	Culture
Advanced Website Design	Advertising & Poster Design
Elective	Elective
Fourth Year	
Semester I	Semester II
Marketing & Promotion of the Arts	Special Project
Intermediate Animation	Major Projects
Branding & Packaging	Intermediate Portfolio Development
Elective	Elective

## Conclusion

In conclusion, it can be said that the graphic design curricula, which were offered in the seven selected institutions in Dar es Salaam and Bagamoyo, according to the proposed graphic design curricula and Tyler's basic principles of curriculum and instruction, lacked relevance in certain other relevant disciplines and teaching facilities.

The curricula used by graphic design institutions were irrelevant because, among other things, they did not work towards their objectives. This study found that some institutions did not have appropriate objectives for their graphic design programmes. Other institutions had not set learning outcomes to enable them to meet their objectives. The issues of minimum entry qualifications, volume of learning and evaluation of students, which were broadly discussed and are proposed by this study, seemed not to be taken seriously by many institutions.

Graphic design training in some institutions such as FPA and VETA was not based much on ICT or computer software programs, but on the basic principles of design, which are essential

and which form the backbone of any proper graphic design programme. These institutions did not prepare students to enable them to produce relevant graphics with appropriate interpretation without distorting Tanzanian social norms. They did not consider training in colour choice principles, letter-spacing rules and many other design requirements discussed in this study. This study makes clear that the graphic design curricula adopted by institutions teaching it in Tanzania do not adequately teach students the appropriate principles of design.

In this sense, students are ill-prepared because of the narrow coverage in the area of graphic design. Generally, the curricula were lacking areas essential for training graphic designers.

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