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DEVELOPMENT OF PHOTO-SERIES DRAWING PACKAGE AS A TRAINING PACKAGE FOR FRESH UNDERGRADUATES OF SELECTED NIGERIAN UNIVERSITIES

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ABSTRACT

Drawing is an all important aspect of the training of a designer/artist. The current situation in many of the secondary school in Nigeria where art is not made compulsory has contribution why many secondary school students fail to offer art. For instance, the status of students intake into the Industrial Design departments of some selected universities in Nigeria reveals that greater percentage of students admitted into the department lacked background in art.

The study therefore went ahead to develop a drawing skill acquisition package which involved the serialization of the 200 level Industrial Design students' syllabus into small lecture modules. These modules were illustrated in a photo-series format. The package is developed both in printed form and soft copy in DVD format that could be played on DVD player and Computer system. Experts in Drawing and Multimedia graphic were employed to evaluate the package.

KEYWORDS: Photo-Series, Drawing Package, Fresh Undergraduates

INTRODUCTION

An Overview of Drawing

Drawing is an all important aspect of the training of a designer; according to Filani (2004), it is the key that unbolts the mysteries surrounding visual representation. In a review on drawing which spans a period of over 100 years (1885-1991), Obielodan (1991) reported that drawing is an inherent natural developmental tendency in man, which can either be developed or left to atrophy. It is obvious from assertion that drawing is important in the training of Industrial Designers. The status of candidates being admitted for the Industrial Design programme in Nigerian Universities of Technology therefore calls for a retraining of the students in the art of drawing.

It was also reported in Clay (1974) that the medieval churches had mural paintings of powerful drawings that illustrated Bible stories such that the cathedrals were referred to as the "Bible of the poor". This was believed to explicitly teach the fundamentals of Christian faith. Giesecke, Mitchell, Spencer, Hill, and Dygdon (1980) stated that graphic representation has been developed along two distinct lines, namely; Artistic and Technical. The authors further remarked that artist has used drawing to express aesthetic, philosophic, or other abstract ideas. Form is the foundation of all the visual arts, sculpture inclusive. Drawing is however important to the study art, architecture as well as engineering (Microsoft Encarta Encyclopedia 2009)

Dobkin (1975) posited that drawing is the most intimate expression of the artist. Philip (1983) defined drawing as an embodiment of a genuine and independent way of thinking. He claimed that someone who draws actually sees more and knows more of the world he or she lives in than someone who does not draw.Laseau (1991) believes that drawings are usually thought of as models for either an existing or anticipated reality. It quite obvious that without drawing skill a designer is limited in his creative acumen because he/she will find it difficult to give expression to his creative ideas.

Pipes (1990) explained that the main aim of the product designer's drawing is to make a representation on 2-dimentional paper of a real or imagined 3-dimentional object. The designer's intentions are communicated faithfully to others in the design and production teams; this drawing, as Pipe noted, must be a complete and unambiguous representation of the represented object.

The various definitions of drawing revealed how different people perceive drawing. Drawing however can be likened to a universal language used in expressing latent idea. It is good to conceive an idea, but it expedient to posses the required proficiency to convey the idea in an explicit way that can be beheld and comprehended. Nevertheless, as there exist various definitions of drawing, its underlying function of representation of an idea still remain a cardinal point of reference when referring to or defining drawing

Drawing is a cardinal point of reference in the practice of an industrial designer. He needs to be able to put his ideas on paper. The dexterity with which he does that is determined by the proficiency he has acquired via training. The status of candidates being admitted into the Industrial Design programme of Nigerian Universities, especially the universities of technology has revealed that a greater percentage of these students do not have background training in drawing.

Due to the increasing number of student intake, (many of whom had no prior training in drawing) it has become rather difficult for lecturer to give adequate attention to student on individual basis especially those without background in drawing The step by step approach to the design of Photo Series Drawing Package being developed is expected to provide the trainees with the basic training required to cope with the challenges of illustration/drawing which a designer would have to face in his practice. This had therefore prompted the researcher to design drawing package that is explicit and user friendly which can be used independently by the students. The photo series drawing package which the researcher has developed is expected to complement the efforts of the lecturers of drawing. The package is therefore made up of sequential progression of drawings which are photographed in stages, beginning from simple lines to the complete form. This enables the trainee to observe how a step leads to the other, and learn at his own pace.

Art teachers and designers are expected to find the package useful as part teaching aids; it is made explicit for both the young and the old to comprehend. The photographed "step by step" approach to the drawings in the package is expected to provide the users with practical examples that a normal traditional method of teaching may not be able to sufficiently do. "An informative book on drawing can be of great help to us, not only through its written material, but particularly through its collection of pictures, for words without illustrations are of little practical value in learning how to draw" (Dobkin, 1975 p.11).

The Photo Series Drawing Package is produced both in print and electronic media. The print medium is in book form while the electronic medium is in video format which can be played on a VCD (Video Compact Disc), DVD (Digital Video Disc) or computer CD ROM (Compact Disc, Read Only Memory) and then projected for a wider view. It is however important to note that the print medium of the package can be used independent of the electronic medium. This implies that power failure would not be a barrier.

Drawing Skills

Guthrie (1952) defined a skill as the ability to bring about some end result with maximum certainty and minimum outlay of energy or of time and energy. Acquiring a skill can therefore be explained in light of the proverbial verse

recorded in the Bible Ecclesiastes 10:10 "If the ax is dull and its edge unsharpened, more strength is needed, but skill will bring success" (Comparative Study Bible, NIV 1999). It is suffice to affirm that any of man's vocation in which he has not acquired adequate skill gives an experience of dissipation of too much of energy with very little or no accomplishment at all. Based on this premise, among others, would the issue of drawing skill acquisition among industrial design students not be overemphasized. Feirer and Lindberck (1975) believed that an Industrial Designer should obtain adequate training, and part of this training should include good background in art, manufacturing process, mathematics, and other areas dealing with business and industry.

David Hockney, in a preface to Jeffery's book (1981) "Draw: How to Master the Art", states that anyone who can draw, even a little bit, can express all kinds of ideas that might otherwise be lost. He stresses that drawing helps putting thoughts in order; it can make one think in different ways, and naturally gives a sense of harmony, and order. This further gives credence to the definition of design – 'design is a plan for order' (Berlin, 1963). A designer uses drawing to express his conceived idea. One of the reasons why we often refer to artist/designer as creative is because they can express their idea in visual form and most often, first, by drawing. The design process of today's designer incorporates all kinds of drawing techniques, each of which is appropriate and necessary for a particular stage in the design-to- production cycle (Pipes 1990). Consequently, adequate drawing skills have become essential for every designer/artist.

A sound foundation of drawing is not merely an advantage; it is essential if the work of lasting merit is to be produced (Clay 1974). Edwards (1994) posits that the objectives of education are to achieve not just literary and numeracy, but graphic, visual and spatial skills. Effective skills acquisition in drawing from time immemorial has been by apprenticeship. Ross (2005) recorded that artists in the early renaissances were trained in an atelier; he described an atelier as a place where an accepted master picks 6 or 8 talented young aspiring artists and train them. These trainees would move in to live with the master and may be there for five to six years after which they graduate and become approved and professional artists.

In a preface David Hockney wrote to Jeffrey (1981), he states that in learning to draw (unlike learning to write), one learns to look. He submitted that it is not the beauty of the marks we like in writing, but the beauty of the ideas. Hockney concludes that in drawing, it is a bit of both – beauty of ideas, of feelings and the marks. The process of learning to draw demands that learner acquaints the subconscious mind with a certain amount of material. This makes the subconscious to largely take over the control of one's hand. It has been observed that drawing like many other skills, is a matter of being able to think of several things at once. Since the conscious mind seems to be able to think about only one thing at a time, the subconscious mind must take care of a good deal when we draw (Hale1964).

Michael Britton (2005), who has been an artist and a teacher for many years, also agreed that there are some people with "God-given" talent, in drawing. However, he remarked that everyone no matter what his/her 'talent' level must study and acquire the skills and knowledge necessary to grow and develop as an artist. For Gamble and Gamble (2004), no disparity as per the status of who can acquire a skill. They opine that whether an individual is 18 or 80, female or male , married or single, employed or unemployed, it is never too late to learn skills that will enrich and improve the quality of his/her life. Klien (2002) perceives learning as the experiential process resulting in a relatively permanent change in behaviour that cannot be explained by temporary states, maturation, or innate response tendencies. It therefore implies that in learning/acquiring skills, the trainee usually experiences a change in attitude.

Almost every form of skill can be acquired; drawing skill is not an exception. Sadly enough, majority believe that only a few individuals are endowed with drawing abilities. Adejumo (2001) after a critical appraisal of Ulli Beier's Experimental Art workshop came up with the conclusion "…much as it is true that there is an element of talent in artistic creativity, artist talent needs to be developed through academic training for it to yield a lasting usefulness".(p.150). Similarly, Ifeagwu (2004) and Britton (artacademy.com) believe that with adequate training, a student who had no artistic background or talent can train to become a good artist. This is however made easy where there are tools/packages that could help learn in an explicit and friendly environment.

Research Bachground

Three out of the four universities in Nigeria offering Industrial Design are universities of technology. The status of these universities of technology demands that students being offered admission into any of its departments are science oriented. However, as a result of the post primary school subject combination that deemphasizes on Fine Art at the high school level, students who offered science subjects do not usually offer Fine Art/Visual Art. This is a problem since the scanty number of students coming in for Industrial Design often lacks the background in drawing.

Akinbogun (2001) posits that the main objective of the establishment of Industrial Design departments in universities of technology is to weave art and science together in order to produce utilitarian objects of high aesthetic value. Akinbogun (op. cit.) further remarks that the few candidates who had background in sciences but who had obtained skills in drawing would rather opt for courses in Architecture and Engineering. This leaves the Industrial Design with very few students with drawing skills and a host of others with no prior training in drawing.

METHODS

The study was delimited to free-hand drawing and sketches with particular reference to figure drawing, and the medium used were pencil and pen on paper. Digital still-photography was employed in the development of the drawing package. Due to the unstable power situation of the nation, the researcher had developed the package in hard and soft copies. The hard copy which is in print medium can be used independent of electricity, while the soft copy produced in VCD requires the use of electricity

Design and Production of the Drawing Skill Acquisition Package

Two stages were involved the development of the package, (I) the design, (II) the production.

The Design Stage

The Drawing Skill Acquisition Package (DSAP) was designed by serializing the 200 level Industrial Design students' syllabus into small lecture modules as culled from the Federal University of Technology, Akure Calendar (2008-2011). More attention was paid to Life/Figure Drawing, an aspect of Free Hand drawing syllabus, which was observed to be a major challenge of the industrial design students. Ifeagwu, (2004) remarked that of all natural and man-made objects the most dexterous is human figure, being that it tells the personality of the person drawn/sitter as well as takes the artist through all the principles and elements of art and design.

The Production

The production was also in two phases: (1), the production of the Hard Copies – print media and (2), the

production of the Soft Copies – VCD

Tools and material used for production include:

A Computer system, A Digital Camera, A Laser Jet Printer, DVDs

The minimum computer system requirements include:

•500 MHz Pentium III (or equivalent) •500 MB of RAM •10 GB of free hard drive space for picture editing •Video card with 4 MB of video RAM, minimum 1024x768 resolution at 16-bit hi-color (65,000 colors) •CD-ROM or DVD-ROM drive •USB port (for connecting the digital camera to the computer).

However, for a smooth running of the editing package used for the production of the soft copy of the package the configuration of the computer unit used is stated thus: 2.8GHz AMD Turion •3 MB of RAM •250GB hard drive out of which 30GB is made free for picture editing.

The following soft wares packages were used for editing and organizing the pictures:

CorelDraw 12; Photoshop CS5 Adobe Premiere 1.5; Microsoft Word; MGI PhotoSuite 4

Although there are a number of operating systems, the Microsoft Window ^{XP} was used.

Hard Copy Production (Print Media)

A storyboard approach was used. A storyboard as defined by Merriam-Webster Online Dictionary.htm.; is a panel or series of panels on which a set of sketches is arranged depicting consecutively the important changes of scene and action in a series of shots). Table 1 gives an example of a typical storyboard for one of the objects of study.

Table 1: A Story Board of the Sequential Drawing of the Human Portrait

Step I	Step II	Step III	Step IV	Step V	Step VI
Outline as derived from egg shape, & the head proportion is determined effect Drawing occupies ¼ of the A4 paper	The position of features like the eyes, nose, ear, and mouth are marked out. Drawing occupies ¼ of the A4 paper	The eyes, nose, ear, and mouth are sketched out in their marked position. Drawing occupies ¼ of the A4 paper	The facial features are accentuated with light shading. Drawing occupies ¼ of the A4 paper	Detailed shading to accentuate personality of the object being drawn Drawing occupies 1/1of the A4 paper	Finishing. such as the Blending of shading is done to give a realistic Drawing occupies 1/1of the A4 paper

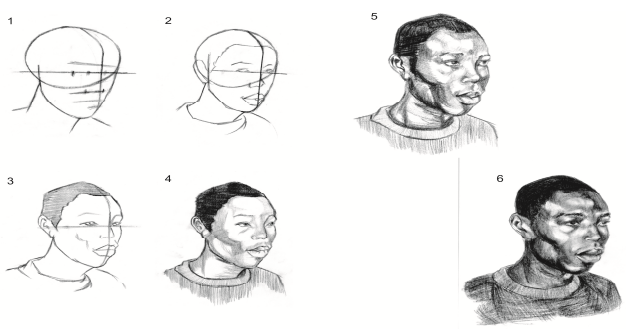

Figure 1: An Example of a Photo-Series Drawing Procedure. By **Ibiwoye, T.I. (2007)**

The drawing/sketches were done with different grades of graphite/lead pencil ranging from HB – 8B as well as ball-point pens. The sequential step-by-step drawing of each object of study as provided in the 200 level Industrial Design Drawing Syllabus were rendered on paper by the researcher. It is important to state here that the drawings of each object of study being rendered in series were drawn to the same scale to align with (Clay) 1974. Each step, as highlighted in the storyboard was photographed using a digital camera to produce the photo series format. Study of a few drawings of some artists and great masters was also included as guides and reference point.

The photographed step-by-step drawings of each object of study stored in the digital camera were downloaded into the computer using the MGI Photo Suite 4. Corel Draw 12 and Adobe Photoshop 7.0 were used to edit the pictures, while the written instructions were done with the Microsoft Word. The package was made "print-ready" using the Corel Draw 12 and then printed on A4 papers using a Laser Jet printer. Copies were made for the students to use.

Soft Copy (Electronic Media) Production

The summary of the steps involved in the production are as stated:

The soft wares used include *Corel Draw 12, Adobe Photoshop 7, and Adobe Premiere Pro*

The "print- ready" format of the package which was printed out for the hard copy of the package were copied from *CorelDraw 12* into a folder. The images in the folder were then saved as *Adobe Photoshop* files. This action was taken because; the Adobe *Photoshop* and *Adobe Premiere* are compatible. The *Adobe \Premiere Pro*w indow was opened on the computer system. The "print- ready" files which were now in Photoshop format were then imported into the project file (bin). Still working with *Adobe Premiere*, the PAL video was selected. The images were then copied from the bin and placed on the time line. The duration for each picture to show before transition was put at 5 seconds, and transitional effect of "dissolve" was then added. An appropriate musical sound was selected from the music file to play in the background as the images transit.

The file (known as *project)* was then rendered and compressed into the Adobe *Premiere* format. The *project* was then run to see how well the pictures transited form one stage to another. The *project* was then encoded into a VCD format, which made it possible to be played on a VCD player. Finally, the *project* was written unto VCD which could be played on the domestic VCD player, DVD player. It could also be played on the computer system's CD/DVD ROM, and projected unto a large screen for a large audience.

CONCLUSIONS

This study set to solve a crucial problem that most Industrial Design students of Nigerian universities experience. The universities of technology design students do not usually have background in drawing from secondary schools because of their subject combinations. The Drawing Skill Acquisition Package was found to be effective via the rating of professionals in the field of drawing and package development. However, improvement can be made on the package. It is amazing how people's performance can improve at the slightest treatment, it is therefore crucial to note that as long as the status of the students intake into the Industrial Design programme of Nigerian universities remain as it is, the use of drawing skill acquisition packages will continue to be relevant.

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