

# HYBRID 'A+AGPD+C' MODEL:

## PHENOMENON THREE DIMENSIONAL FORM FOR ILLUSTRATION DRAWING PAINTING MANUALLY

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**Abstract**— This study employed model process of line drawing painting manually using a hybrid context 'Art' and 'Architecture Graphic Presentation Drawing' and courseware (A + AGPD+C). Model process will propose in courseware prototype. This hybrid model was designed to assist difficulties in producing a quality visual object among undergraduate student. Interview, observation and imitation were used in the visualization process. The organization of Line Visual Art (LVA) was analyzed based on art elements: appearance, line, shape, form, texture and color in order to form three dimensional illustration line drawing objects manually (3DiLDOm). The model process consists of the best technique drawing painting in (3DiLDOm) by Subject Matter Expert (SME) and mimesis Modeling. This study helps in the development of students' drawing ability using line techniques. The courseware can be used by students, lecturers, and communities in improving their understanding of drawing and to work independently. This study contributes to the curriculum and pedagogy in the area of drawing model development; shifted from a Traditional Learning Approach (TDA) to a Self-Access Learning (SAL) to draw their manually drawing painting environment for student-centered teaching transformation.

**Keywords**—Hybrid, Dimensional, line, Architectural Graphics Presentation Drawing Instructional Learning Design

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### I. Introduction

Art and architecture discipline encourage individuals to experience their lives more vividly by enabling them to re-examine their thoughts and renew their feelings. Art is the quality, production, or expression of what is beautiful, appealing or of more than ordinary significance. In the visual arts, awareness has been sought through the sense of sight and the development of visual thinking [1], [2]. As an art, architecture is concerned with the design of the space. Architecture is the art and science of designing and constructing a building for practical, aesthetic, and symbolic purposes [2]–[4].

The nature of drawing has long been acknowledged as cognitive tools to stimulate an artist's creativity [1], [5], [6]. According to [7], models of designed process have to be clear in order to create a virtual learning environment in Art Drawing (AD) or Architecture Graphic Presentation Drawing (AGPD). In these two design disciplines, designing are a process which essential for all the visual arts. A painter begins with a need to express a personal idea or to fulfill a personally expressive mode. The architect is a professional designer's role to enhance living by applying a developed sense of aesthetics and utility.

In Malaysia, there is still a lack of research on the issue of the three-Dimensional objects illustration. Previous studies stated that there is still room for researchers to develop hybrid models to address this issue. [1], [8] elucidated that there are building techniques which need to be dominated by students. It derived from the line, shape, thread and the three-dimensional illustrations.

The Education Development Plan (EDP) 2013-2015 has indicated 11 agendas of its transformation plan [9]. In the 7<sup>th</sup> agenda, the EDP has stated the importance of ICT to improve the quality of learning in Malaysia. The main focus of its transformation based on the key areas of teaching delivery system [10].

[11] stated that instructional materials development tools need to be improved in order to produce students who are knowledgeable in practical or 'hands-on' work. In line with this teaching development, teaching-based multimedia applications become increasingly important in education. This statement was in accordance with [12] that educational agenda should incorporate new technology and emphasized should be on multimedia technology in the teaching and learning process.

## II. Literature Review

The study aimed to combine artistic style drawing painting in three dimensional illustration line drawing objects manually (3DiLDOm) by mixing two discipline's knowledge of drawing painting in fine art and graphic presentation drawing of architectural drawings for a drawing and painting process among art students. The resource population of the study comprised of total seven Subject Method Expert (SME) in the field of fine arts, architecture and multimedia performance follow by Delphi technique.

Drawing Painting is a technique in which the image portrayed drawn on a flat surface. According to [13], to make the line speaks, ink, pen, pencil, crayon, charcoal and chalk are the major media in drawing painting but it can be made with any combination of paint, dry and wet media. This statement supported [14] statements that the drawing and painting contain the soul and spiritual values that will enable the production of a work of art that can be appreciated.

According to [15], a work of art is divided into two parts, i.e. illustration and actual artwork. Illustration of art form involves drawing, painting, photography, printmaking, graphic design and others. Actual artwork includes sculpture shape, architecture, metalwork, glass design, ceramics, fiber work, product design and others.

[15] also thought that images generally exist in two dimensions, height and width that can generate the illusion. Illustration drawing painting though might be flat, but can exist in two-dimensional and three dimensional illustrations based on the illustrative form of the artist. The flat surface of the picture plane is where artists perform their images. This flat surface can also represent an imaginary reference plane where artists can create the illusion of space.

D.K.Ching(2003) shares the same opinion with Ocvirk et al. (2013) that as a component of art, design refers to the arrangement of words and the overall arrangement of

artwork. The form is an artwork arrangement through the elements of art or element of design. This element consists of line, shape, form, texture and color to build illustration form and object in organic or geometric.

This qualitative study is conducted in two phases. The first phase was the development of the courseware. In the development of courseware, experts in the area of courseware development, artists, and architects were consulted and interviewed. The second phase was the implementation of the courseware. The courseware was used to explore the participants' ability to imitate various techniques of line drawing employed by an artist. It is used to enhance participants' ability to produce the three-dimensional illustration of the object manually.

In this study, the concept of hybrid is used to elevate participants' ability by employing a combination of several diverse technologies or fields. The two-dimensional begins with a flat surface. The flat surface is the picture plane on which artists execute their images. This flat surface may also represent an imaginary plane of reference on which an artist can create spatial illusions. In the two-dimensional graphic arts, as drawing, painting, photography, printmaking, graphic design and images generally exist in two dimensions with height and width but can generate the illusion of space [15]. The three-dimensional consists of illusions of height, width, and depth. In the three-dimensional illustration arts as drawing, painting, photography, printmaking and graphic design, images generally exist in two dimensions with height and width but can generate space in illustrations of three-dimensional [1].

The 'line' element integrated in the courseware resembles the path of a moving point made by a tool, instrument or medium as it moves across an area. A line is usually made visible because it contrasts in value with its surroundings. The axis on three-dimensional objects, the sharp edge or ridge formed by two surfaces meeting at an angle made visible by cast shadow, it is often interpreted as a line [6], [15], [16].

In this study, the Architectural Graphics Presentation Drawing' (AGPD) consists of drawings that is used to explain the image or object in the field of architecture, including humans, vehicles and trees images similar to working drawings. The smearing technique is the art of adding surface textures and shadows to show the visual quality of the building to make it more realistic [4]. Illustration architect or graphic designer can be used to provide perspective or image that fits

the site plan floor plan, elevation and so on, as well as known architectural drawings that combine technical drawings with presentation drawings. Architectural drawings are used by architects for several purposes: to develop a design idea into a coherent proposal, to communicate ideas and concepts, to convince client's image of a design, to enable the contractor to construct the building, as a record of work completed and to make a record of the building that it has been in existence[3].

The Instructional Learning Design in this study consists of learning and teaching program presented in various ways according to participants' abilities. Adaptive learning as an educational method that uses the computer as an interactive teaching tool is used in this study. Adaptive learning has also been known as adaptive educational hypermedia, computer-based learning, adaptive instruction, intelligent tutoring systems, and computer-based pedagogical agent [17].

In this study, the researcher used interdisciplinary research. The abbreviation of 'Hybrid Style' in Art, Architecture Graphic Presentation Drawing was adapted in learning method with 'A + AGPDC' (Art, Architecture Drawing Graphic Presentation Courseware). The researchers explored the theory and techniques of drawing on illustration of the 3-dimensional objects approach using SAL.

### iii. Statement Of Problem

The AGPD syllabus for students of Diploma in Architecture, Polytechnic is a basic course of CA103 at Polytechnic, Malaysia. Students are taught using the medium of painting tools, guidelines and specific techniques to create geometric objects and organic architectural style. Rudy Adipranata et al. (2008) explained that many students of Diploma in Architecture encounter problems in understanding the basic process of painting in the style of architecture. They are influenced by the styles of painting in the school environment [5], [11], [13]. Many students, who studied CA103, are weak in the drawing skills from technical aspects, which is the fundamental and basic process of creating a good painting.

Based on the researcher's experience after teaching the students of Polytechnic in Malacca for more than 9 years, it was found that these students were considered as less skillful in drawing using 'free hand' technique. According Adipranata

et al. (2006) added that these students were influenced by the drawing styles and techniques during their school years. Statistically, from January 2010 to July 2012, 8 to 20% of the students have started quitting their studies because of the reasons that they were not able to paint in the style of architecture, failure to manage time of studies and unable to complete all assignments. Table 1 below shows the percentage of students who have left the program from January 2010 to June 2013

**Table 1:** Students' Record of Quit/Change Course for Architecture Program from January 2010-June 2013

| Session       | Percentage of Quit/Change |
|---------------|---------------------------|
| January 2010  | 8.2 %                     |
| July 2010     | 18.7 %                    |
| January 2011  | 13.2 %                    |
| Jun 2011      | 20.1 %                    |
| December 2011 | 8.9 %                     |
| June 2012     | 19.4 %                    |
| Dicember 2012 | 9.4 %                     |
| June 2013     | 11.3 %                    |

The issue of low-skilled students to draw not a new issue in the education system in Malaysia. Studies conducted from one year to the next year to address this issue. Nazli, Hamzah, Salleh (2013) and "*Pembinaan Dan Penilaian Modul Pengajaran Teknik Mewarna Cat Air Subjek Pendidikan seni Visual Untuk Guru Bukan Opsyen*", by J.Kasran (2012) are one of the efforts to help address these issues. Before that, in year (2008) the UiTM academia Azahar Harun, Haslinda Abd Razak, Ariff Ali administered a survey with 110 respondents, who were primarily comprised of students from the Faculty of Art, students of Digital Media Design, Fine Art and Photography. The issues were related to the potential of online media and online self-teaching. The results showed that 75% of the students watched, listened, compared and contrasted on the topics taught. Only 40% of the students watched and listen. Haron & Mohamed (2007) conducted a study to find ways of solving an insulated line optimization for 3 dimensions of objects from the 2 lines of hidden dimensions.

### iv. Theoretical Framework

In the process of producing three-dimensional illustration of the object manually, Hybrid Model Art + Architecture + Graphic Presentation Drawing Courseware (A + AGPD + C) are assimilated together with the philosophy of design and measures taken by Albert Bandura. According to the

researchers, reading this modelling theory is appropriate for this research study. Models and modelling are the main agents of the proposed Hybrid Model research. In order to understand the social theory, the people who imitated behavioral measures are called models and modelling techniques. According to Kasran (2012), model is divided into two types: real model which is called live model consists of behavioral measures and processes that replicated objects. Whereas the second type is called symbolic model which refers to the work steps or procedures and manifested in the form of language or visual forms such as pictures, flow charts and diagrams.

Under the hybrid model 'A + AGPD + C', the researcher concluded the four steps mimicry, as discussed in Albert Bandura's theory. The first step is focusing attention on the model. In this study, the consultant has drawn illustrations, demonstrating drawing three-dimensional objects manually. The next step involves both memory storage and record keeping process followed. Visual recordings, artistic and technical consultant were recorded for record purposes. In the third step, the production of all information, behavioral or skills that were saved subsequently issued in the form of treatment. Motivation and reinforcement prompted to do any activity is the last step that was introduced. This hybrid model study was compiled using interactive courseware. Hence, theoretical models through observation and modeling approaches, according to the study researchers, are appropriate to overcome the drawing of illustrations of three dimensional objects manually among students. Agent model as a resource and modeling is a technique that was introduced in the imitation process.

This study used the qualitative methods with Modeling Theory approach by Zakaria,(2012). The researchers have conducted the field work in a real situation. Qualitative research was descriptive. Data were collected in the form of words, visual recording, catalogue collections, student work, audio recordings, field notes, journal collection, collection of books and official documents. Collection of qualitative research was done on a continuous basis [25].

According to Zakaria (2013) theoretical models, cross disciplinary research is more likely to have a positive impact and unity in the artwork. The replication method, a model theory of fine art paintings and drawings of architectural presentation graphics, which has assimilated the concept of the elements in the design and construction of instructional courseware design, used the ADDIE model. In the context of the Hybrid Model 'A + AGPD + C', between the three disciplines of painting techniques, have combined to see how students view the unity of the various fields of art and their

relationship with other areas in terms of techniques, styles and implications for the work of art in Malaysia.



## v. Purpose Of Study

In this study, the prototype courseware based on an interdisciplinary drawing painting, studied in fine art and architecture graphic presentation drawing. Modeling Theory has been used with ADDIE Model and element of design in order to seek the following objectives:

1. To identify difficulties in the process of art pupils in order to visualize the subject for producing a quality visual object.
2. To analyze the organization of Line Visual Art (LVA) with art elements of appearance, line and color in order to form 3D objects among technical artists.
3. To investigate the level of understanding in using the Hybrid A+AGPD Model.

## vi. Discussion And Conclusion

This writing contributes to the curriculum and pedagogy for authentic learning in the area of model development; shifted from a Traditional Learning Approach (TDA) to a Self-Access Learning (SAL) environment for student-centered teaching transformation, aspired by the Malaysian Qualification Agency (MQA) significant effect on student attention of the drawing painting skill.

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