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MANAGING THE CREATIVE ARTS THROUGH VISUAL DIARY: A METHOD TO GENERATE IDEAS FOR STUDENTS

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ABSTRACT

In most art and design programs, drawing, doodling, and sketching are taught using various drawing approaches. Thus, many artists and designers have traditionally created and maintained visual diaries, often known as visual art diaries or visual journals. This study examines the visual diary as a means for students to express their different creative viewpoints and abilities to produce new ideas. This instrument has been incorporated into the duties and projects of selected students as part of their creative arts education. Many had training in sketching, doodling, and experimenting with different drawing styles. Despite this, many struggle with the process of ideation due to a lack of understanding and comprehension. Consequently, graphic design students at a private university in Kuala Lumpur, Malaysia, were used to evaluate a research-specific assessment rubric that employs the IDEO assessment and design thinking. The quantitative sample comprises 35 visual diaries from 35 first-year visual communication design students. The quantitative data from the IDEO evaluation were analysed using descriptive statistics. Based on the findings, it can be concluded that students demonstrated a greater understanding and contribution to the design process using the visual diary. Furthermore, future effort should be made to enhance, develop, and explore ideas to use the visual diary as an instructional tool for students' assignments and projects.

Keywords: Creative Arts, Visual Diary, Generate Ideas, IDEO, Rubrics



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INTRODUCTION

Visual diaries or visual journaling have been incorporated as a creative arts education practice into the tasks and projects of selected students. Nevertheless, there seems to be insufficient information, explanation, and practice for students of the creative arts faculty, such as graphic design, multimedia design, fashion design, and other faculties such as interior, building, and product design, to perceive the significance of ideation in the design problem-solving process. Keeping a visual diary is commonly utilised in secondary school art programs and high school art classes. Many creative arts and design programs at the tertiary level have begun to urge students to practise utilising a visual diary to develop their ideas, ideation process, and appreciation for their process art. A visual diary becomes important for the students to introspect himself by looking back at what he wrote, remembering what events that occur in everyday life. In addition, visual media through diary keeping is important to remember because there are additional aesthetic elements to the diary made (Rizki Tilarso, N.,2021).

In a recent study, visual journaling has also been practised and applied in many faculties, not only in art and design courses. It has been practised and adapted in psychology as one of the required methods in art therapy. It is claimed that this practice has helped many people to avoid being overwhelmed by artistic drawing. Furthermore, by documenting the everyday art and design practices through the visual diary, it is a way to communicate their inner feelings and thoughts and appreciate their love for the artwork. Consequently, as Wolfe (2011) mentioned, the visual diary can be a practical resource for the classroom and real success in the laboratory. Students should practice it as an essential role in the classroom, improving critical thinking about procedures and actions to generate in-depth knowledge and deep-thinking experiences. At the same time, they must cultivate a love for the works of art produced to form their identity and values among them (Fingerhut, J. et al., 2021).

In this study, a seven-week assignment of the visual diary was offered to first-year students of the imaginative expressions program through a visual depiction. This task encourages students to investigate drawing as a work of art and to generate ideas. The practical ideas of this task include seeing, considering, and creating ideas at an early level. Given the perception and experience of this present reality, ideation is essential in demonstrating different illustration topics. The topic of illustrations would require thinking about line, frame and space, esteem, observation, centre, deception, and the expressive, passionate parts of the illustration. The students participated in illustration practices and completed them in class and as homework. The final result of the course is an expansive sketchbook; in this situation, this sketchbook is considered as a visual diary. This visual diary will contain all illustration techniques, compositions, finished illustrations and fine arts. The prominence of this tool was highlighted to enhance the student learning experience, to positively impact creative thinking, and to explore the design process in the private higher education institutions in Klang Valley.

In identifying the research gap, an absence of comprehension in idea creation was found. Imagination has dependably been at the core of the practice (Amabile & Khaire, 2008), leading to creative intellectuals which are particularly vital to design firms such as engineering, inside plan, visual design, scene engineering and industrial design (Huber, Leigh & Trembaly, 2010). There should be an increase in learners' understanding of creative processes in classroom application to perform practical, creative thinking as well as add appreciation and love to their work. It was found that a lack of emphasis is present on the central planning process among creative design practitioners. As asserted by Jung Soo Lee (2015), improving structured ideas in the early design process guarantees that the procedure becomes an explicit sort of issue solving that includes steps to recognise, disclose, inquire, and contemplate. Thus, this reasoning procedure has been likewise drilled and examined in the item, building, and designing plan fields.

Imperatively, in the planning operation, a lack of learning keeps the structure discipline down such that the broad concepts of structure and planning can be applied to any operation that involves changing, arranging, or executing exercises as well as constructing ancient moulding rarities just like administration which can increase realities and social circumstances. In this study, we focused on the structure ideation of significant products and the definition of



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ideation pursues the point of view of the item plan. Different significant portrayals of the structure operation have provided a subjective scientific way to cope with design. Design process models suggest creating a structure arrangement through progressive specific scheduling phases. Ideas are developed at the beginning of the operation and marked as the duration of structuring applied or age (Howard, Culley & Dekoninck, 2008). The established concept of holistic design thinking reviewed by Horst Rittel (1972) allows students to work successfully in multidisciplinary teams and bring about positive, design-driven worldwide changes. As a problem-solving strategy that has been attempted and tested with socially ambiguous problem environments, it deals with every day-life-problems that are nevertheless hard to fix—"wrong issues," as it was called. Hence, design thinking is an integrative concept for designing cognition and learning that enables students to work successfully in multidisciplinary teams and bring about positive, design-led worldwide change (Rauth, Köppen, Jobst & Meinel, 2010).

In this study, Ben Johnson's perspective was adopted, where ideation indicates early processes in which ideas, thoughts or portrayals are produced, created, and conveyed as planned. The ideation stage results in an underlying idea. In addition, Jonson (2005) characterised the concept as an essential component of the belief that could be theoretical, visual, concrete or inherently unique. It is, therefore, a depiction that may arise in the frame of the mind or the material. The terms, plan concept and structure idea are now and then used conversely in design examination. Be that as it may, the structure concept is described as a finished proposition in a few plan reviews, which joins a distinctive concept, but is also in line with the relevant objectives that are differentiated in the problem structure. Interestingly, from another study by Garnham et al. (2013), the central idea for generating creativity is about the capacity to create thoughts. In contrast, some researchers, psychologists, and philosophers quoting Aristotle and Plato asserted that the formation of ideas could be explained by association. We believe that thinking includes moving from one concept to another through an unimaginable chain of connections and thoughts. Thus, it was thought that the growth of thought was a method of accumulating connections. Therefore, it can be suggested that the ability of an individual to solve an issue is explained by their ability to create associations (Aurum & Gardiner, 2013).

We aim to provide the students of the Creative Arts Program with a better understanding and views on the fundamentals of the design process. From this finding, we aspire that a more robust outlook in generating ideas, developing, and disclosing the stages of idea development step by step from these students in the Graphic Design, Multimedia and Fashion Design Programs can be applied to a broader population of students in the general creative education system. It was conducted within the structure of a tertiary level for the diploma of Graphic Design program through the visual diary and adapting design thinking models as a practice of design thinking theory. We tested a new instrument design for this study to increase the students' creativity and ability to interpret and understand idea generation and solve design problems in their projects and assignments.

In this new testing instrument, we aim to discover the student's achievement in the idea generation process through the visual diary. We then analyse the assignment's mean scores and determine the IDEO model's effectiveness for generation of ideas. We are convinced that this research is essential as the utilisation of a visual diary can be connected to any training courses for tasks and assignments. Furthermore, this research will disclose a new way and tool to determine whether the students have acquired new abilities and knowledge towards increased demand for creativity and design approaches.

LITERATURE REVIEW

A visual diary is often linked to recording down ideas in many ways and is not limited to any subjects and themes. It is often considered as a connection to our creativity. As pointed out by Dorst and Cross (2001), creativity is often distinguished by the occurrence of an important event, i.e., the so-called creative leap. Sometimes this event happens as a sudden insight that the designer distinguishes instantly as important. However, sometimes the designer (or an observer of the design process) cannot determine or point out the process or the moment when the critical concept emerges. Deep thoughts and creative outcome descriptions of creative events made by the designers are



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sometimes not dependable. This is further seen by Mueller, J., et al. (2018) mentioned that expertise should influence creativity assessments, yet examples abound of experts in different roles disagreeing about the same idea in managing creativity.

Therefore, designers and students can use a visual diary to record their thoughts, ideas and to generate multiple ways of viewing their subject matters. It will connect to the creative design process where the product is more valuable with the above-mentioned aspects. This research attempts to investigate the use of a visual diary as a tool to help creative practitioners and students to generate and develop ideas. As Springgay et al. (2008) have pointed out, the visual diary may also help students assess a moment, experience, feeling or idea by combining designs with images to learn to evaluate an event, experiment, or sense of an idea. Through this stage, learners can explore and experiment with their thinking and emotions by accumulating different ideas and ramifying their minds. Thus, from that stage, learners would be able to produce not only high-quality art products but authentic originality because of the process (Arora, R, 2018). Hence, in this study, the researchers need to examine the use of the visual diaries among the students to understand their thoughts to generate idea in the art processes. Then, it is beneficial for the lecturers to use the information in teaching and learning.

Scott (2010) noted that visual diary practice had been widely used as students' assignments in various subjects in schools and in many creative and art programs, including art therapy subjects in psychology programs. However, it appears that students have not been taught how to generate ideas and to have a better understanding of the method of generating ideas in the design process. Therefore, there is a need to emphasise the idea generation process, where students are encouraged to learn in different ways to create and generate thoughts. This tool can be regarded as a practical instrument to create more opportunities for students to explore methods to collect fresh thoughts. In addition, sometimes students understand social class to be inclusive emotions, social distinctions, and social status. Thus, drawings and explanations show that perpetuated ideology-justifying status quo of poverty and economic inequality. For students with complex socio-cultural insights into how social class operates that manifest themselves through four domains: material, intersectional, emotional, and spatial according to Howard, A., Swalwell, K., & Adler, K. (2018).

Leonardo Da Vinci, one of the greatest art masters of the 14th Century Renaissance era, used visual diaries to generate ideas and record his reflections through drawings and sketches. According to Scott (2010), it was found that Da Vinci's diary has around seven thousand pages, containing perceptions and considerations of scientists that he venerated, individual reflections on life structures, water, illustrations, herbal science, topography, works of art and more. Da Vinci's diaries involve himself as, inter-alia, a researcher, naturalist, designer, and craftsman as can be discerned from the record of his ideas based on his naturalistic thinking and concepts. The great master has certainly had vast topics and drawing themes in his visual diary. Often his sketches and drawings are accompanied by his semantic habit that is evident in his diaries.

As Trueit (1995) said, the word "diary" is taken from the French word day, which stands for "the day", whereas the English word diary is a subsidiary of "late diurnal," which means "every day". In this way, a diary is a composed portrait of the day and combines the roots and consequences of these root words. In this modern-day age, the cutting-edge diaries, although similar to the more customary composed record of a day, have advanced into a more extensive and progressively inventive endeavour. The practice of recording diaries has progressed from just a day-by-day process into a chronicle for life. Diaries go from composed depictions of exercises, documentations of enthusiastic battles, discussions among self and the world, to transcriptions of movement encounters (As cited by Scott, 2010).

Scott (2010) also asserted that there are always some occasions, events, or thoughts to be expressed in one's diary. Every day there may be some interesting or incredible or as little as very ordinary daily stories to tell. A visual diary, likened to a journaling process will have permitted the author to list, document, assess, explore, and express ideas about his or her life. Hence, it is the process of listing, recording, evaluating, examining, and expressing one's



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thoughts on one's life. Whether Da Vinci was thinking about his next exceptional thoughts for his painting and drawing, or any invention of a genius such as Edison, records of their diaries have led to many historical facts, revealing how the excellent masters have worked in the past. Visual journal is an effective platform for documenting and reflection. Thousands of years ago, people devoted themselves to journaling throughout the globe and tales of their achievements and endeavours were found. Although questions for the historians could not be addressed right now, their visual journaling has provided many people with an in-depth view and insights that could be used as a potential guide for others. Yet, a visual diary could be considered as a part of listing factors such as cognitive, conative, emotional, and environmental that may come into the creative process (Botella et al., 2017)

Visual diary or diarying is an imaginative path for designers to share their encounters and individual reactions to life's occasions in a visual and composed frame. Through choosing and orchestrating content and pictures, students can expand their comprehension of craftsmanship, improve the appearance of their ideas, and give uplifted basic reactions to visual culture. It likewise urges designers to know themselves on a more profound dimension, considering individual qualities and difficulties, qualities, and concerns, and wants and dreams for the future (Cummings, 2011). As Bernabei (2010) characterised, the visual diary is broadly utilised all through the planned procedure by experts, instructors, and students. It is effectively a body to encourage the accumulation, recording and impression of ideas, information, and planning. Thus, the visual diary is a built-up appraisal practice in planned training. The customary type of training in a visual diary and visual reasoning today is to maintain a visual diary in a sketchbook. As discussed by Todd (2017), visual diary as a tool of assessment could be part of reflective learning which allow students to step back from their learning experience to help them develop critical thinking skills and improve on future performance by analysing their experience. Thus, perhaps this study could give ideas on diversifying assessment methods in visual arts for educators.

Lupton (2012) contended that this is a procedure of catching ideas through little illustrations every day, as portrayed in his book, *Graphical Design Thinking: Beyond Brainstorming*. Henceforth, there is a need to work on making a visual diary by experimentation with materials and procedures. According to Blighe (2008), visual diaries facilitate the management and organisation of images constructed, enables one to acquire the skill to organise numerous images easily, establishes a new connection between images and improves design skills among the learners. Moreover, image analysis is also instrumental for design applications and evaluation. Blighe and O'Connor (2008) aimed to design a visual diary that consists of personal image collections taken via a passive capture device. Thus, the use of a visual diary is appropriate to be used in this study.

IDEO is a global design agency that emphasises Human Focused Design (human-centred design) in order to promote open collaboration and the usage of design thinking approaches. IDEO, based in Palo Alto, California, is a global architecture practice. The company was founded in 1991 to structure products, administration, conditions, and expanded knowledge through design thinking methodologies (Bloomberg Businessweek, 2011). Human Focused Design (human-centred design) is emphasised by this firm to foster open associations and the private sector, which benefits the mentioned administration, which is growing and combative. Design thinking, according to Tim Brown (1999), is a top-to-bottom method of interaction and understanding of human requirements. This technique is regarded as a thorough procedure for dealing with structural concerns, administration, and situations in all aspects of critical thinking.



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Figure 1. A Model-based on IDEO Design Thinking. Retrieved from <https://www.designthinking.com/index>

Design thinking is based on people's ability to understand designs, important concepts, and self-articulation without the need for words or visuals. Instead of seeking methodical advancements, the design thinking process is shown as a space framework covering. There are primarily three spaces:

- i. Motivation - Inspiration is an issue or opportunity that drives business seeking for arrangements.
- ii. Idea Generation - The idea age is the way towards producing, building, and testing ideas.
- iii. Usage - Implementation is the way from venture to life of numerous individuals.

In this context, IDEO uses two conventional research devices and systems to enable customers to see how their new or existing tasks will be in the future. The IDEO technique includes protected innovation, a model of the action plan, perception of information, advancement techniques, hierarchical structure, as well as subjective and quantitative research.

From a review of Lupton and Phillips's book titled *Graphic design thinking: How to define problems*, we discovered that most design projects begin with an issue such as product improvement, logo creation, or illustration of a concept. In the beginning, designers and customers often believe too closely about issues, restricting the outcome's achievement by restricting their perspective of the scenario. For instance, a customer who claims to need a fresh brochure could do better with a website, promotional event, or marketing plan. The author explained that if there is a developer who believes the customer requires a fresh logotype may discover a visual icon or a fresh name to function better for a worldwide crowd. There is a need to search for greener packaging that could produce fresh manufacturing and distribution technologies as well as individual products. The author's ideas are cheap and abundant at the beginning of the design process, pumped out in abundance and tossed around with abandonment. Later, when many concepts are reduced to those most likely to succeed, visualising and testing each one will take time and money. Consequently, designers often start with a period of open-ended, playful research. It is a method that involves lists of writings as well as pictures of sketches. It includes mapping both familiar and unknown territories.

For this study, we are perceiving the techniques that developers use at the early stages of the creative process to identify (and question) the issue. Some techniques such as brainstorming assists developers in producing key ideas, while others, such as interviews, focus groups, and brand maps, try to illuminate the issue by wondering what consumers want or what has been achieved before. Many of these methods could take place at any stage of the process, such as brainstorming. Brainstorming is the first step in the process for many designers, and it is the mother



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of many other thought devices, hence why we put it at the top to determine the methods to be used whether informal or coordinated or acceptable at all? Can one just sit down and be a creative person? Most thinking methods include outsourcing thoughts so that they can be viewed and contrasted, sorted and paired, graded and shared. Thinking does not just occur within the brain. It happens as fleeting thoughts into tangible things: words, drawings, prototypes, and suggestions. Thinking occurs more and more among organisations in working towards common objectives (Lupton & Phillips, 2008).

In Marzano's research, Pickering and Pollock (as cited in Scott, 2010) claimed that, like journaling, the visual representation concept has proved to be useful to pupils. However, contrary to journaling, the benefits of visual representations were explored in direct relation to student achievement. Psychologists developed a theory of how humans retain knowledge in the 1960s when the practice of journaling was studied in the United States. The theory suggests that in the brain, language-based data and picture-based data are processed in two ways. This theory is also called dual coding. This form of language method for storing data is to store 14 data in the formatting phrase style. The brain receives information either orally or in writing and stores it in a similar fashion. This reflects the newspaper's storytelling nature. The brain, on the other hand, reacts to visual or physical inputs in the visual technique of storing information. The data is stored in the brain as a linked picture or feeling in the context of the incident. The majority of data supplied at college is received in language mode, according to findings. Students, according to Scott (2010), are more commonly engaged in verbal and written form, despite being significantly influenced by the visuals. The active participation of students in the construction of non-linguistic representations was proven to activate and increase brain activity. Although the visual journal appeals to novices by incorporating writing into the process, it is not for everyone. Thus, the visual journal appeals to novices by integrating writing into the common linguistic roles, it also encourages them to use their way of thinking visually as proposed in this study. There is still a lot to learn about using the visual diary as a teaching tool which encourages students to practise using it to explore effective art and design assignments and school activities. In general, the literature review found a link between the usage of visual diaries and the development of critical thinking as well as the practice of in-depth learning, and that it may be considered a great instrument for academic evaluation in assisting students in producing ideas. The practice of documenting a visual diary will have a positive impact on the student's creative process and their academic achievements.

However, this mode of teaching may be more effective in specific populations. To narrow the research gap on the absence of comprehension in creative ideas, a few theories have been listed and established to reinforce design thinking skills, ideation processes, and new knowledge gained that has been adapted as an IDEO assessment through a study of new methods of finding ideas. As illustrated in Figure 2, in this research, we incorporate formalist theory to study the visual diary made by students (Dazkir, 2013). Formalist philosophy emphasises the fundamental qualities of a work of art as its primary quality. Lankford (1986) claims that formalism has become the most important language in art education classrooms, where the elements and principles of art/design are the fundamental building blocks.

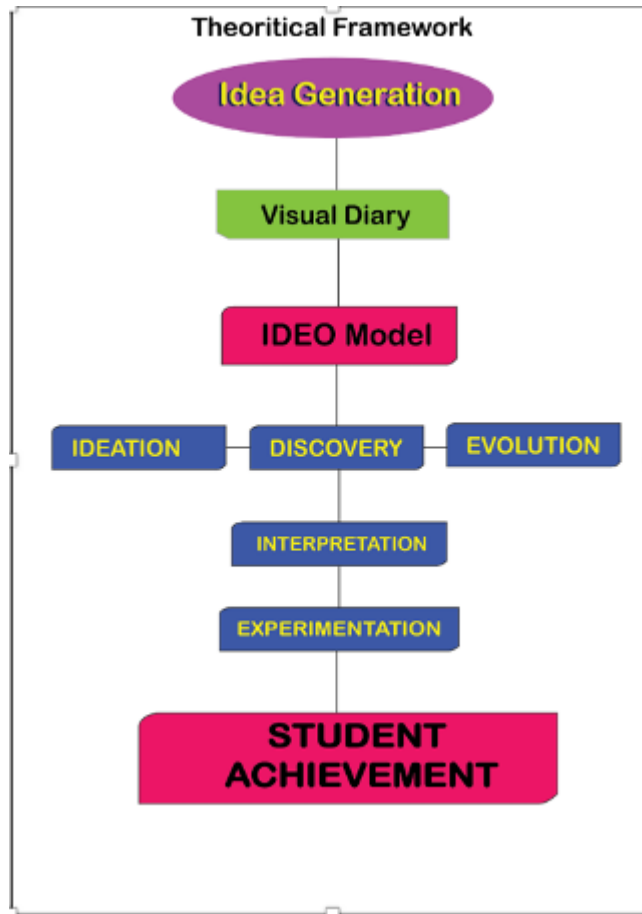


Figure 2. Framework for IDEO Model

Students must first understand the fundamental aspects of visual art, such as line, form, and colour, in order to generate an aesthetic response. As a creative practitioner, the capacity to comprehend the formal aspects of the visual elements will be just as important as the ability to generate ideas. Whether the visual features are chosen by the artist or the students, it is important to remember that in the study of an artwork, both Lankford and Broudy (1967) claim that formal qualities can be utilised to construct language and processes. In addition to generating ideas as a creative practitioner, it is vital to comprehend the formal features of visual elements in order to generate an artwork or a concept. If the visual aspects are determined by the designer or the students, it is important to note that formal qualities might be employed to generate vocabulary in the art judgement process.

After examining the formalistic aspects of the visual features in the diaries, we employ the ideational theory of meaning, according to which the connotations of words are abstract concepts. This idea is introduced in Book II of An Essay Concerning Human Understanding. Locke is the primary safeguard (but not trend-setter) for this thesis (Locke, 1996). Locke defines the idea as whether or how the brain considers itself or is the rapid object of perception, concept, or comprehension. In this study, we distinguish between fundamental and complex thought. Through arrangement, association, and debate, new ideas can be derived from existing ideas. The majority of mediators concurred that two sorts of notions must be recognised: those that rely on immediate discernment and those that develop gradually. Thus, concepts generate an uncommon notion. Despite the fact that "idea" does not mean



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"image" according to Lowe's research, the Nominal Essence is applied to various notions. As they have combined to assign in order to form many concept layers, according to this theory, it is permissible to select a subset of them as the experienced image. This could facilitate the comprehension and expression of objects and ideas. Therefore, ideas establish a novel type of notion. Even though "idea" is not synonymous with "image," According to Lowe's research, the Nominal Essence is used to differentiate between concepts. According to this view, we arbitrarily select some of the attributions used to construct a confusing thought as the perceived picture. This could help us identify items and define concepts.

In visualising the theory of ideation, Chitsaz and Hodjati (2012) asserted that the theory is represented in Unified Modeling Language (UML), which facilitates the comprehension of the theory in terms of all the ideas employed in the ideational. They concluded that there is a mixture of hierarchical ideas and organisation, with the assumption that, if several the characteristics are expanded to a more advanced set of characteristics, a portion of the theory's significance will derive from class relationships, resulting in a new, compliant version of ideational theory. Therefore, UML is a perfect visual modelling tool for describing an ideational theory of meaning, in which concepts are explicitly split into Class and Things. Class is the central component of this modelling, representing basic or complicated notions. In addition to operations and objects, its constituents also include relations and other properties. In ideational theory of meaning, a word's meaning is its relation to itself. Due to the significance of relation in conceptualization, Generalization and Association has been able to represent the semantics of ideational theory. In addition, the improved concept of class and object can address objections to ideational theory by embodying second-order concepts and a fundamental or essential property shared by all class members.

In the creative area, components of the visual diary are widely studied and shared among artists, designers, and fashion designers. It is usually taught by first-year program students in art schools and colleges who follow the course of the creative arts, such as graphic design, fashion design, interior design, digital design, and industrial design. The components of the visual diary can be varied into three main sections. Namely the content of the diary, the subject matter which refers to a theme, topic or idea and the visual art elements used in the diary to record and to draw out their idea or specific topic. Thus, the artist and designer are knowledgeable about the visual elements for the design, drawing and painting.

The creator of Understanding Art, Rathus (2013), states that the line element is the main visual element mostly used by artists and designers. Lines can keep shaping, whilst light can uncover them. Shading can depict the world we see around us and uncover the mental universe inside us; for example, we are blue with distress or red with fury. The surface is connected with all the feelings of contact, with the cool sharpness of shape or the yielding vibes of substances. We exist in space, and space wraps us. Time enables us to form into what we are fit for being; time, at last, takes us to what we have been. We are all in movement through space, in a close planetary system that is crossing the edge of our world at a large number of miles every second or turning on the outside of our globe at a thousand miles for each hour. However, it is the littler movement - the movement of lifting an arm or riding through a field – that we are bound to detect and thus speak to in workmanship.

In this way, students must understand the visual vocabulary – line, form, light, meaning, shading, air, space-time, and motion – all of which are referred to as the visual components of the artwork. Rathus (2013) claimed that most designers and fashion designers choose from a variety of media, like, but not limited to, form or image, drawing, painting, design, engineering, photography, materials, and pottery. They use the visual components of craftsmanship at that stage to express what needs to be in the medium chosen. They use these components in their self-articulation to design parts of a specific form, frame, and material.

Visual art elements can be grouped into six fundamental visual elements components, namely, line, shape, colour, value, texture and volume or space. The first visual element is widely used in the line. Art would be sunk without line, now and then known as "a moving point." The line is the most fundamental component of artistry skill; a ceaseless check made on a surface can change in appearance (length, width, surface, heading, bend). A line is a



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stamp or stroke made by a moving point. Lines are devices for correspondence. At the point when specialists use lines to characterise the edges of an item or to portray its surface, they are recounting a story. A similar opinion was expressed by Grushka, K. et al. (2022) that visual culture may have colonised the self and learning, but imagination is without borders.

- 1) Line quality portrays the presence of a line - its look. Diverse line characteristics like thick, thin, light, dull, strong, broken, hues and so on all will change according to how the line is translated in an illustration.
- 2) Shape: When a line crosses itself or meets with different lines to encase a space it makes a shape. The shape is two-dimensional; it has statutes and width yet no profundity.
- 3) Form is a three-dimensional item. The shape is just two-dimensional; the frame is three-dimensional. In illustration or painting utilising quality a frame can be suggested. Shading a hover in a specific way can transform it into a circle.
- 4) Space is characterised and controlled by shapes and structures. Positive space is a place where shapes and structures exist. Negative space is the vacant space around shapes and structures.
- 5) Space in a two-dimensional painting which refers to the movement of objects on the surface of the picture. The plane of the picture is outside the paper or canvas of the illustration. The workmanship of the two dimensions has statures and width but no depth. By using a point of perspective, the illusion of depth can be achieved.
- 6) Value is the range of the image's delicacy and darkness. Esteem is created by a light source that shines on an article that makes shadows and characteristics. It further illuminates the subject's near or true shade. Value allows depth within a picture which makes an artwork to look three-dimensional with characteristics and cast shadows, or in a scene where it becomes lighter in tone as it subsides to the substance providing the vision of depth.

In general, the literature review has shown that there is a positive connection between the use of visual diaries and the enhancement of critical thinking as well as the practice of in-depth learning and that it can be perceived as an excellent tool for academic evaluation in helping students to generate ideas. There is still a lot to be learnt about the practice of using the visual diary as a teaching instrument that encourages students to exercise it and utilise it as a tool to explore effective art and design assignments and school activities. In utilising visual diaries as tools for teaching and learning, quantitative research is needed to assess and evaluate the effectiveness of this instrument. The practice of documenting a visual diary will have a positive impact on the student's creative process and their academic achievements. However, this mode of teaching may be more effective in specific populations.

METHODOLOGY

The methodology involves research design, description of the method, sampling of the participants, rubric and assessment score card used as instrument and finally the reliability and validity of the instrument. The quantitative method is suitable for this research design and procedure. This quantitative study has been used to test objective theories by examining the connection between variables, namely, the visual diary approach module and the Graphic Design program. This is a descriptive research using rubrics based on IDEO Model and the five dimensions of evaluation criteria. The effectiveness of this rubric in assessing the creativity and idea formation in students when they apply visual diaries is used as part of improving critical thinking about procedures and actions to generate an in-depth knowledge and deep-thinking experiences.

The variables were then evaluated, typically on tools, so that numerated information could be analysed using statistical processes. The descriptive statistics made use of means, standard deviations, and percentage to determine the students' achievements. SPSS and Microsoft Excel have been used as a computer analytics statistics program to support the process of data analysis. The method employed is a one-shot study that does not include the use of random assignment to control threats to internal validity. After considering various research approaches that exist, we conclude that inductive approach is the best and most appropriate approach for this research, as it moves from



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specific observations to broader generalization and theories. Whereas the quantitative research objective was used to test the relation between variables, namely, the rubric based on the Ideation theory and visual diary.

The subject was selected using a non-probability sampling method in this study. The researcher does not simply study whoever is available but uses judgement based on prior information to select a sample believed to provide the data that is needed. This purposive sampling technique has been used because the researcher concentrates on a specific group of respondents who have the specific requirements to provide the necessary information (Fraenkel & Wallen, 2009). The criteria of the subjects for this study consist of students enrolled in the visual communication subject of the first-year graphic design program. These students were taught by one of the researchers in the first trimester of the year, i.e., May to September and April 2015. The 35 students comprised 19 males and 16 females who have completed their SPM or foundation course from the university.

An instrument was used to assess the participants' achievements. The instrument, namely a rubric, was used to measure, observe, and document the quantitative data. The instrument employed to gather the numerical data is the IDEO Assessment Model (performance instruments). This instrument was developed using the IDEO Model which was based on Vogel's Design Thinking for Educators. This instrument is suitable because it has strong significance for the research issue discussed in the study. It is a hierarchy model, which is a manner in categorising thinking according to five dimensions for educational learning that could be examined (refer to section 2.4).

- (i) **Discovery**— At this stage, the student needs to research the problem. Students are expected to gather as much information as possible so that they can define the problem.
- (ii) **Interpretation**— At this stage, the student needs to look at all aspects of the research, find and understand the meaning and look from various angles and create from the facts that they find.
- (iii) **Ideation**— At this stage, the student is expected to create as many ideas as possible and to generate ideas in large quantities. This process may involve brainstorming and mind mapping.
- (iv) **Experimental**— At this stage, the student is expected to do experiment level and test the ideas generated into the form, visual and product prototypes.
- (v) **Evolution**— At this final stage, the student is expected to further develop or change to something new. He or she is required to compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.

An assessment score card is developed through the five dimensions of the IDEO model as shown in Figure 3.1-3.5. This assessment sheet is assessed by three lecturers from the creative division. These lecturers or professors have also taught additional disciplines in the graphic design department, including photography, drawing, and mixed media. In order for the researcher to examine and enhance the visual journal as a tool for creating ideas for graphic design, grading and evaluation by these teachers are crucial.

Within the practical lessons, the researcher designed the grading criteria. Assessment was essential since it provided input throughout the creation of the Visual diary. During the seven weeks of instruction, the researcher could focus on the subject's weekly activities as well as the lesson's procedure. Thus, pupils would acquire the ability to evaluate their own exercises/tasks/assignments. The grading sheet containing rubric scores, criteria references, and categorization into the five aspects of the IDEO model.

The seven-week duration of the lessons required the usage of grading mark sheets. On the grading mark sheet (Fig. 3.1) Discovery dimension, (Fig. 3.2) Interpretation dimension, (Fig. 3.3) Ideation dimension, (Fig. 3.4) Experimentation dimension, and (Fig. 3.5) Evolution dimension, the five categories employed in the scale were labelled as follows: (i) excellent, (ii) good, (iii) average, and (iv) poor, for the evaluation.

| Categories | 20 Excellent | 15 Good | 10 Average | 5-1 poor | Points |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------|
| 01. Discover "I have encounter challenge" | Strong ideas, find many ways and willing to try new thinking and understand the challenge of an issue | Interesting ideas that need further pursuit and deeper exploration . Have | Interesting ideas but not taking risk. Being influenced by existing art piece. | Common ideas and not well developed. Need more hard work. Lack of creativity and shows no | |



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Figure 3.1. Discovery Dimension

| Categories | 20 Excellent | 15 Good | 10 Average | 5- 1 poor | Points |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------|
| 02. INTERPRETATION "I learned something." | Clever transform of idea into meaningful views. Students find relevant samples and information to discover one clear direction. | Interesting and good transform of idea and relates storytelling in the idea direction. | Average and fair idea is produce. Lack of meaning and has no clear direction. | Lack of ideas and most of the ideas are not clear or has no meaning or had no relation. | |

Figure 3.2. Interpretation Dimension

In separate columns, the narrative descriptions of each criterion for great performance to extremely poor performance are specified in depth. Each category was assigned a numeric value, with "great" receiving 20 and "extremely poor" receiving 5-1. The criterion was created using the lesson's weekly objectives and the Bloom's taxonomy of educational objectives.

| Categories | 20 Excellent | 15 Good | 10 Average | 5- 1 poor | Points |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------|
| 03. IDEATION "I see an opportunity" | Students has shown ample of ideas in large quantity and also refine the ideas through (eg: Brainstorm , mind map and other idea generates technique) | Student has generated many ideas and enough quantity of idea. Students has possibilities to grow more ideas or more refine ideas. | Student has insufficient ideas and has not used any of the (eg: Brainstorm , mind map and other idea generates technique) | Student has not demonstrated enough efforts in generates ideas, students tend to give up easily and only propose limited ideas. | |

Figure 3.3. Ideation Dimension

| Categories | 20 Excellent | 15 Good | 10 Average | 5- 1 poor | Points |
|---------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------|--------|
| 04. Experimentation "I have an idea..." | Student shows great ability to build a model or proto product .Besides, | Student shows fair model or proto product .Besides, building the final model. | Student shows limited model or proto product .Little feedbacks was gathered. | Weak in coming out a model or proto product .No feedback was gathered. | |



Figure 3.4. Experimentation Dimension

| Categories | 20 Excellent | 15 Good | 10 Average | 5- 1 poor |
|----------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 05. Evolution "I tried something." | High efforts in documenting the planning and showcase of idea and concept development. | Average efforts in documenting the planning and showcase of idea and concept development. | Low efforts in documenting the planning and showcase of idea and concept development | Only minimum and limited effort in documenting the planning and showcase of idea and concept development. |

Figure 3.5. Evolution Dimension

A reliability test was conducted on the assessment rubric to test the validity, consistency, and reliability of the data analysis procedure to be used as the assessment rubric by the researcher to cater specifically to this study and its activity. To evaluate the students' solutions, three makers were recruited, as all of the art educators specialise in the field of creative arts and design. All three assessors who participated in this study were given one set of rubrics together with the visual diary project brief and a weekly lesson plan to help guide their assessments of the studio art production with a marking scheme based on the IDEO model assessment sheet. Upon completion of the assessment of the students' visual diary assignment by the three assessors, the scores were averaged for each section. A final calculation was created for an average score for each student. Cronbach's alpha coefficient was conducted. The acceptable value of the test to be considered that is reliable in this study is 0.5 alpha and above. The higher the value is, the higher the consistency and reliability of the instruments. The reliability test for the students' studio practice was with an alpha of 0.813. Table 1 illustrates Cronbach's Alpha Reliability Statistics.

Table 1

Cronbach's Alpha Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| 0.813 | 5 |



RESULTS

Based on the results obtained in this study, it appears that usage of a visual diary as a tool for idea generation does have an impact on students pursuing the foundation graphic design program. The visual diary enables them to gain a better understanding of the development and experimental process of generating ideas in their classroom assignments and projects.

On the other hand, an IDEO Assessment model was developed to measure students' achievement in their assignments and projects for academic achievement. The results revealed that through adopting this IDEO assessment model, the visual diary has a significant impact on the student's cognitive learning strategies and are efficient tools to help the learners with issues of generating ideas. Lastly, the presence of this comprehensive IDEO assessment model has a positive impact on the students' academic achievement. This model also plays a significant role in providing support to students to assist them in generating and developing multiple ideas.

As illustrated in Table 2; descriptive statistics presented the distribution of students' scores in the assessment of their grades and percentages obtained in their visual diary assignment. The distribution is observed based on the percentage of students' scoring grades, ranging from grade A (Excellent) to grade F (Fail) (Refer to Appendix C). From a total of 35 students, only 11.4% scored grade A, 17.4% scored B-, and most students achieved grade B with the greatest percentage of 22.9%, for grade A-. Only 5.7% of the students managed to score in this grade, followed by 8.6% of students scoring grades C+ and C. None of the 35 students were assessed in the category of grade F.

Table 2
Grade and Percentage Obtained by Students in Visual Diary Assignment

| Grade | Percentage (%) |
|-------|----------------|
| A | 11.4% |
| A- | 5.7% |
| B+ | 22.9% |
| B | 25.7% |
| B- | 17.4% |
| C+ | 8.6% |
| C | 8.6% |
| F | 0% |

Based on the results, the visual diary assignments were assessed through the five dimensions of the IDEO model. This model was used to investigate the students' assessment in the making of the visual diary project and their involvement in the early stages of the ideation process, so that they may generate multiple ideas and explore the usage of the various mediums in their drawings and design. From the results gathered, it was revealed that due to the students' prior involvement in the ideation process, drawing skills, art techniques and experiences gained through this visual diary assignment, they have achieved good grades. This was indicated in their ability to understand the process of idea generation and their ability to communicate various ideas, namely in drawing themes, designing icons and usage of mind mapping in their visual diary.

As illustrated in Table 3; the descriptive statistics presented the distribution of students' scores in their assessment of the mean score and percentage for visual diary assignment based on the five dimensions of the IDEO model. Based on a score of 100, the mean score of a student's level of knowledge is 66.5. This indicates that by general standards



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of the university score, the student's acquisition of knowledge in idea generation is good. Average scoring falls within grade B- and though it is not an excellent score, students are generally knowledgeable about generating and developing ideas. Nonetheless, the big range between the highest score of 87 and the lowest scores of 44 seems to indicate that students' ability is quite varied. Meanwhile, the mean score achieved by students is 66.5 and the standard of deviation is (SD=9.8).

Table 3

Mean Score Achieved by Students in Visual Diary Assessment

| N | Minimum | Maximum | Mean | Std. Deviation |
|----------|----------------|----------------|-------------|-----------------------|
| 35 | 44.00 | 87.00 | 66.5 | 9.8 |

Figure 3.6 is an example of student's assignment and Figure 3.7 is the evaluation performed by one of the assessors (Assessor 1) on the student's visual diary code R13. In this self-portrait project, students must organise their collection of thoughts and determine which concepts best represent their self-portrait character. This self-portrait assignment requires students to identify no more than ten descriptors. This is because, at the Interpretation level, students will need to learn to interpret and look for more meaning in contexts. Students were instructed to choose only four to five things that best represent the essence of their self-portraits. This was not a simple task for the students, as it was their first time attempting to interpret design work. However, after a few sessions of discussion with their classmates and instructors, they were able to select and interpret an appropriate persona for their self-portrait assignment. As stated by Barone and Eisner (1997), it is essential for students to be exposed to the Interpretation stage. Business and art educators have emphasised the significance of producing future designers with a variety of skills, characteristics, and knowledge-based transformations.

After the Ideation phase has concluded, it is time to begin Experimentation, the fourth step of the design process. According to IDEO, it is essential to expand upon the concept developed during the ideation phase. This entails creating prototypes, making the concept tangible, and gaining additional knowledge by applying the solution at an early stage.

According to the outcomes of this study, students are capable of interpreting and combining one or more self-portrait exercise listings. In summary, students performed well on the Interpretation stage, demonstrating that they have a solid grasp of the experimental procedure at this point. According to Vogel (2014), despite the fact that design thinking relies significantly on human perception and the capacity to demonstrate empathy, it is essential to tie all research results to individuals and their stories.



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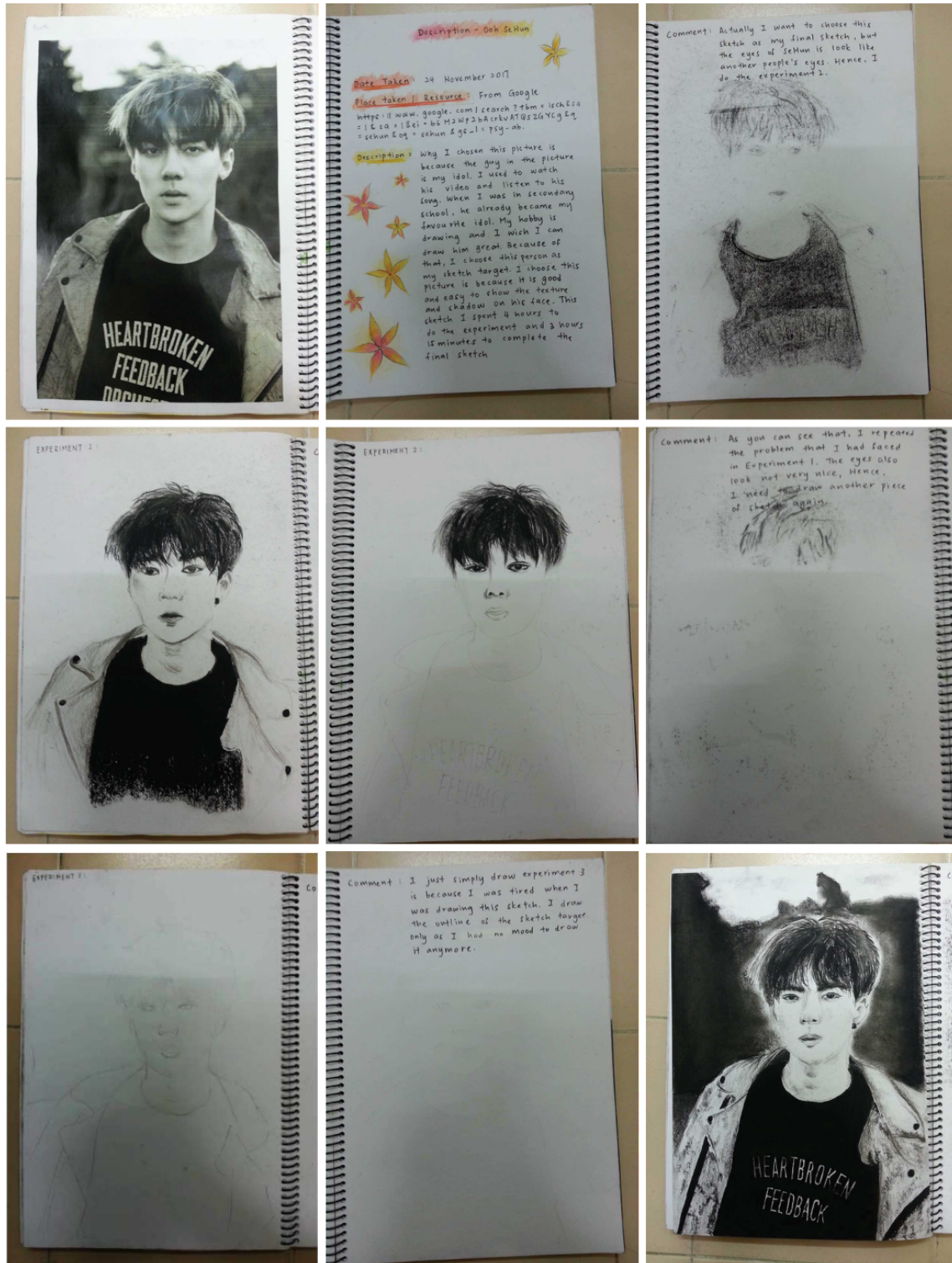


Figure 3.6. An example of student assignment and the reflections



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| Categories | 20 Excellent | 15 Good | 10 Average | 5– 1 Poor | Points |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------|
| 01. Discover "I have encounter challenge" | Strong ideas, find many ways and willing to try new thinking and understand the challenge of an issue | Interesting ideas that need further pursuit and deeper exploration. Have good understanding of an issue. | Interesting ideas but not taking risk. Being influenced by existing art piece. | Common ideas and not well developed. Need more hard work. Lack of creativity and shows no interest for improvement. | 18 |
| 02. INTERPRETATION "I learned something." | Clever transform of idea into meaningful views. Students find relevant samples and information to discover one clear direction. | Interesting and good transform of idea and relates storytelling in the idea direction. | Average and fair idea is produce. Lack of meaning and has no clear direction. | Lack of design sense and weak in digital illustration skills and colors application. | 17 |
| 03. IDEATION "I see an opportunity" | Students has shown ample of ideas in large quantity and also refine the ideas through (eg: Brainstorm , mind map and other idea generates technique) | Student has generated many ideas and enough quantity of idea. Students has possibilities to grow more ideas or more refine ideas. | Student have insufficient ideas and has not used any of the (eg: Brainstorm , mind map and other idea generates technique) | Student has not demonstrated enough efforts in generates ideas, students tend to give up easily and propose limited ideas. | 17 |
| 04. Experimentation "I have an idea..." | Student shows great ability to build a model or proto product . Besides, building the final model. Also gathered feedbacks . | Student shows fair model or prototype/ product. Besides, building the final model. Also gathered feedbacks | Student shows limited model or Prototype/ product .Little feedbacks was gathered. | Weak in coming out a model or prototype/ product .No feedback was gathered. | 16 |
| 05. Only tick ONE of the following category applicable to the type of project conducted, and tick to mark grading within columns: | | | | | |
| Evolution "I tried something." | High efforts in documenting the planning and showcase of idea and concept development. | Average efforts in documenting the planning and showcase of idea and concept development. | Low efforts in documenting the planning and showcase of idea and concept development | Minimum and limited effort in documenting the planning and showcase of idea and concept development. | 15 |
| Result | | | | | 83 |
| | | | | | /100 |
| <i>Comment</i> | | | | | |
| "Assessment Sheet: Criteria Rubric" for the assignment of Visual diary" | | | | | |

Figure 3.7. Assessment rubric performed by Assessor 1

Based on the results obtained, most of the 35 students have shown the ability to generate ideas and concepts based on the IDEO model. The visual diary assignment impacted the quality of students' development, particularly, in their selection of skills in visual observation, design knowledge gained, and improved problem-solving skills. As depicted in Figure 1, the students have demonstrated a fairly equal ability across the five dimensions. However, upon closer scrutiny, the students achieved the highest abilities in the Discovery and Interpretation dimensions, with a mean score of 40.9 for both dimensions. As expected, they scored the lowest in the Evolution dimension with a mean score of 38.4. Meanwhile, they achieved a mean score of 40.1 and 39.1 in the Ideation and Experimental dimensions, respectively. Needless to mention, this is the highest dimension to measure critical ability shown in Figure 2. From the findings above, it is concluded that students excelled in the area of Discovery and Interpretation dimensions. However, students appear to be showing slightly weaker abilities in the Experimental and Evolution dimensions.



Bar Graph of the Students IDEO Model dimensions

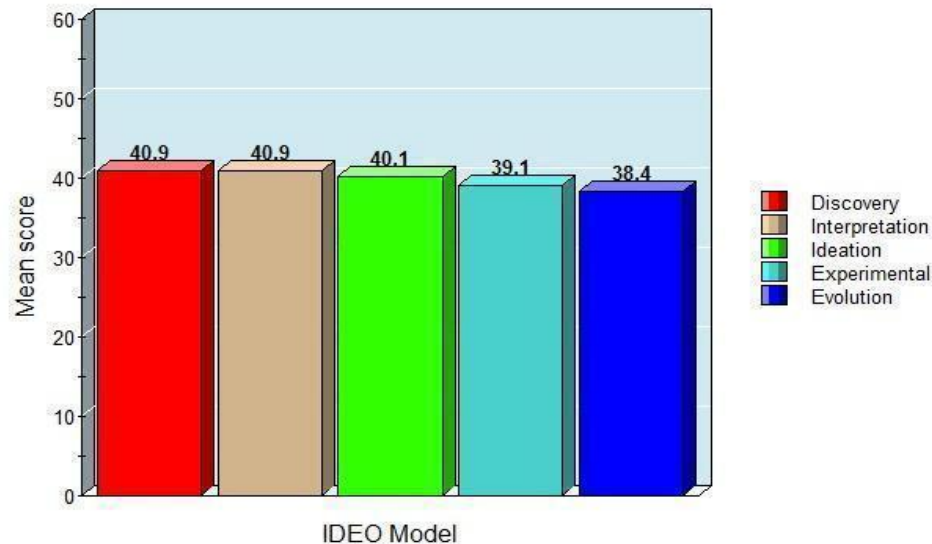


Figure 2. Bar graph of the student's IDEO model dimensions

DISCUSSION

Students in the foundation course and first year of creative arts were evaluated with the IDEO evaluation approach and scores. According to the findings of this study, students in their first year of graphic design school benefit from adopting a visual diary as a tool for idea generation. Visual diaries aid students in comprehending the conceptualization and testing of ideas for school assignments and projects. According to the findings of the study, the students' high marks were a result of the prior knowledge, abilities, and experience they gained from the visual journal project. Existence of this significant task in this tertiary-level creative arts programme affects students' academic performance and course-related grades. Eisner (1998a, 1998b) argues that art and design experience can be beneficial to students in other disciplines. The majority of students earned a B, B+, or a B-. This academic achievement suggests that students have adequate knowledge and comprehension to complete their schoolwork. The ratio of C+ to C students on this assignment was minimal. This indicates that these students may lack the necessary knowledge and comprehension for the assignment. Students must devise inventive methods to improve their grades and enhance their inventiveness.

The students appear to have the ability in idea generation. The visual diary assignment impacted the quality of students' development, particularly, in their selection of skills in visual observation, design knowledge gained, and improved problem-solving skills. Especially in the Experimentation Phase in the IDEO model from building the idea which translates into building prototypes by making the idea tangible, the use of principle & elements of art is most prevalent at this phase. We found that the students have scored low mean score due to their lack of skill base practice in drawing or lack of understanding in the artistic aesthetic sensibility to perform their artwork.

Many factors contribute to creativity and one of it is innovation (Aurum & Gardiner, 2013). Some psychologists and philosophers (including Aristotle and Plato) have suggested that association may explain the formation of concepts. According to these philosophers, thinking also entails an incomprehensible chain of connections and ideas. Tomas (1999) defined originality as inventiveness. According to Steinberger (1999), everyone is creative, but culture and



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management inhibit it. According to Steinberger, creativity requires intelligence, cognition, thinking processes, personality, and motivation (as cited in Aurum & Gardiner, 2013).

By trying to generate fresh thoughts and experimenting in the visual diaries, the students will develop their critical thinking skills and foster creative problem-solving skills. By doing so, they are attempting to solve issues with new methods and become innovative. Most of them were able to produce thoughts with creative problem-solving capabilities ranging from informal to complicated. They were also versatile in generating diverse categories and opinions for the same problem with a variety of ideas. They worked out their ideas well by adding, exaggerating, or building on their idea. Most of the students' ideas were original, fresh, distinctive, unusual, new and distinct when producing their studio art production. The development of visual diary as a tool for students will engage many of the learners' divergent thinking skills. The group of students who participated in this study have also been able to conceptualize some difficult, complex and multidimensional thoughts. The willingness of this group of learners to be brave, risk-taking and excited to learn fresh thoughts could be seen (as cited in Maithreyi Subramaniam, 2017).

The 7 weeks' project for students to do this visual diary assignment is in fact, the preliminary stage, where students will engage in the visual diary process. They began to explore various topic to draw, doodle, sketch, scamp, and colour in the diary activities. Many questions and examples were raised at the preliminary stage to discuss various topics and subject matters for inclusion in the diary as most of the students at the early stage of this project were not certain what to put down in the diary or how to create a visual diary. It is a non-directional, experimental and a pilot stage for students to discover early design process, to set up a design brief for them to generate topics, drawing medium and drawing style in the diary. The process of visual diary as an instrument involves divergent thinking skills of the students. This group of students have also been able to develop multiple thoughts in the design process. Gardner (1973;1990) and Eisner (1981; 1982) asserted that cognitive factors foster student creativity and receptivity. Experimenting and trying new things will assist youngsters to develop critical thinking and inventive problem-solving skills. Therefore, they attempt to solve difficulties using novel methods and become innovative. Majority of the youngsters have simple to complex creative problem-solving skills. They created distinct categorizations and perspectives for the same topic based on distinct ideas. Their ideas were well-developed by addition, exaggeration, and expansion. When making works of studio art, the majority of students had original, novel, weird, new, and distinct concepts. Through the use of visual diaries, students' divergent thinking skills will be stimulated. Students in the study were able to conceptualise difficult, complex, and multidimensional ideas.

Through the five components of the IDEO methodology, the students' talents in concept communication, visual perception and artistic reaction, drawing research, form and subject knowledge, the design engagement process, and critical and aesthetic inquiry improved. This development is essential for students pursuing a degree in graphic design, multimedia design, fashion design, product design, interior design, or architectural design at the fundamental or foundation level. Design ideation is a discourse concerning the generation and presentation of ideas, where an "idea" is a visual, concrete, or abstract thought. It is a crucial step in the design process in education and other industries (Fowels & Broadbent, 1979:15; Jonson, 2015).

Finally, it was discovered that students' practical art creation improved as a result of their prior knowledge, talent, and design process expertise. The comprehensive IDEO assessment process benefitted the ideation and experimenting of pupils. Similarly, the model's visual experience influences the student's final art and design piece and studio production. The students utilised new concepts and exercises to cultivate their critical thinking and creative problem-solving abilities. The experience has enhanced their imaginative, analytical, and divergent reasoning. This study demonstrated how students improved their problem-solving and analytical abilities. This method encompasses the phases of discovery, interpretation, conception, experimentation, and evolution. Vogel (2014) asserts that design thinking demands compassionate, collaborative, exploratory, and hopeful reasoning from educators. This concept is also applicable to other design tasks. The IDEO model is one of the most effective design thinking methods employed in the creative industries and art and design education. All of these strategies, according to Vogel (2014), assist problem solvers to become more conscious of the thinking style they should employ to



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address the issue. Knowing when to use divergent and convergent thinking enables individuals to generate the most effective problem-solving ideas. This inventive strategy will assist us in generating original ideas.

CONCLUSION

The conclusion that can be drawn from this study is that creativity and experimentation in idea generation have significantly risen. At the end of the semester, as a result of this finding, students begin to learn and become more adventurous in exploring across a broad range of topics and concepts. This promotes learning and creativity in addition to the effects of creativity, as measured by the model and scores indicating satisfactory academic accomplishment for the learner. Based on the findings of this study, it shows that the use of the visual journal as a tool for idea production has an effect on graphic design students in their first year of study. The visual journal enables students to obtain a deeper knowledge of the conceptualization and experimentation involved in producing ideas for their school assignments and projects. Additionally, students can express their creativity and add value to their artwork. On the other hand, an IDEO Assessment model was established to assess the academic accomplishment of students' assignments and projects. The results demonstrated that by applying this IDEO evaluation approach, the visual journal has a substantial impact on the cognitive learning techniques of students and is an effective tool for assisting students with challenges related to idea generation. This thorough IDEO evaluation technique has a positive effect on the academic progress of students. This model also plays an important function in assisting students with the generation and development of different concepts.

It is to be noted that there are many variables affecting the ideation process and it is difficult to identify one solitary factor. Other variables may be explored for further studies, as an extension of the process of idea generation, using the visual diary as a resource in the Graphic Design program to help increase higher order thinking skill. Several related research can be carried out to determine if the variation in the reflective process or art appreciation variables may affect and make a difference in the outcome of the study. It can be part of their portfolios as non-traditional research outputs to document their progress in idea generations while experimenting and expressing their creativity and innovative thoughts in the art making process. Visual diary can be used as a tool to encourage the practice of art making for our local secondary school's art programs using IDEO assessment model to monitor and evaluate their progression. As currently practiced, grades were given based on the final artworks which considers formalistic elements only and not the process of idea generation. The synopsis of a visual diary course describes it as a subject for students to generate and create ideas from a variety of unexpected sources. Visual diaries introduce students to fundamental methods in recognizing worthy visuals. With the ability to look out for artistic representations, aspiring creative students are able to gather, classify, recall, reproduce and reuse these image references for generating originality. As a whole, visual diaries act as a way to store multiple ideas and students are able to develop good skills and creative habits in generating interesting and perhaps, original ideas.

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