

Conference Paper

Improving the Quality of Print Media Learning with Press Screening Techniques Through Teaching Books

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ABSTRACT

The purpose of this study is to compile a textbook for Visual Communication Design 2 in the Visual Communication Design study program. This course discusses the logo as a visual identity and its implementation in print media using the screen-printing press technique. The research method uses two stages, namely the creation stage and the publication stage. The creation stage includes pre-production, production, and post-production, while the publication stage includes registration of book publishing and book releases. The result of this research is a textbook entitled "Improving the Quality of Learning in Print Media with the Screen-Printing Press Technique". This book contains the process of implementing the results of the illustration of the East Java UPN "Veteran" souvenir design into the DKV media using the Press screen printing technique. The selection of screen-printing techniques is based on the techniques used in the previous research entitled "Visual Design and Souvenir Products of the" Veteran "National Development University of East Java as the Identity of the State Defense Campus". This research concludes that this textbook can be used as the main textbook for DKV 2 courses and as a reference book for several subjects such as DKV 2, Graphic Method, DKV 1, DKV 4, DKV 5, and Final Projects. Besides, this book can also be a reference book for the community in the souvenir production process using the screen-printing press technique.

Keywords: DKV textbooks, printed media, screen printing press

Introduction

The field of graphics is closely related to screening printing techniques. The word screen printing comes from the Dutch language, namely "Schablon" so that in the adapted language it becomes screen printing (Nusantara, 2007). Screen printing or screen-printing means painting a design based on an example. Screen printing is printing using a printed or mall model. Filter printing can be interpreted as printing activities using gauze/gauze which is commonly called screen (Nusantara, 2007). As technology advances, this manual printing technique has developed into a screen-printing technique using a machine. The use of machines in this screen-printing process is considered practical and more efficient. The screen-printing press has several types of techniques that can be used. Among them are transfer paper using pigment inks, sublimation, DTG, and so on. Screen printing press uses digital techniques (also known as digital screen printing) using computers and printers. Digital t-shirt screen printing is a screen-printing technique that no longer uses devices and is also a method commonly used in manual screen-printing techniques that still use devices such as screens, frames, racks, and photo emulsions. This screen-printing press technique can be implemented in various media, one of which is souvenir products such as mugs, hats, t-shirts, etc. The design is applied using previously created illustrations through a digital process.

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Illustrations created manually require special techniques in drawing. In modern times like today, the development of science and technology is developing so rapidly. The development of this technology can make human life easier by carrying out an activity. Therefore, slowly people began to leave the old ways and switch to using new methods by utilizing technology, including making pictures or illustrations. Nowadays, illustration is growing with the use of much supporting software such as Adobe Illustrator, Photoshop, CorelDraw, and others. However, the experience of some people who have the advantage of manual drawing says that it is easier for them to learn computerized digital drawing than people who can only draw digitally.

Someone responds very well to the application of visual image media as learning media such as illustration images. The illustration is the result of writing in the form of painting, drawing, photography, or other fine art techniques that prioritize the relationship between the subject and the writing or what is meant is compared to the form. The illustration is often confused with other disciplines, especially fine arts and graphic design. This may be due to overlapping functions and needs (Witabora, 2012). Learning is an activity that involves someone to gain knowledge, skills, and positive values by utilizing various sources for teaching. The process of learning or learning something, of course, will not be separated from the learning media.

This research is a continuation of research that has been conducted by researchers on a basic research scheme in 2017 entitled "Visual Design and Souvenir Products of the" Veteran "National Development University of East Java as Identity of the State Defense Campus". Researchers have continued the research on the PMP (Learning Quality Improvement) scheme in 2018 with the research title "Manual Illustration Drawing Guide Book" with the output in the form of a reference book entitled "Introduction to Illustrations" with the content of the learning process and making visual design illustrations for UPN souvenir products " Veteran" Jawa Timur. The book "Introduction to Illustration" is a reference book especially for DKV students who are currently taking Form 1, Figure 2, Illustration, and Illustration Media courses. Generally, for all DKV students and illustration lovers. Now the RISDA skim research that has been carried out in 2017 is continued and developed again in the 2020 PMP scheme research entitled "Improving the Quality of Learning in Print Media with Press Screen Printing Techniques" with the output in the form of a textbook with the following content:

1. Definition of Visual Communication Design
2. Data Collection Techniques
3. Logo Material
4. Semiotics
5. Graphic Standard Manual (GSM)
6. Compiling Layout
7. Supergographical
8. Visual Identity
9. Sign System
10. Illustration Design on Souvenir Media
11. Implementation of Illustration Design on Souvenir Media with Screen Printing Press Technique
12. Screen Printing Press, Transfer Paper, Dark and Light Pigment
13. Sublime Transfer Paper Press Screen Printing

The content above is textbook content for DKV 2. Point number 10 uses material from the book "Introduction to Illustration" which is the output of research in 2018. While points number 11, 12,

and 13 are the practice of implementing illustration images with the screen-printing press technique discussed details on book output in current research. The screen-printing press technique was chosen here because it was adjusted to the technique used in the research outcome in 2017 entitled "Visual Design and Souvenir Products of the" Veteran "National Development University of East Java as the Identity of the State Defense Campus". This textbook supports the Visual Communication Design 2 course in the DKV study program. The illustration images used in the 2017 RISDA skim research output have described the methods, techniques, guidelines, and processes in the reference book "Introduction to Illustration" (results of the 2018 PMP skim research output). In the current research, the output of supporting textbooks for the DKV 2 course is about implementing the results of the images into the DKV media with the screen-printing technique, such as the technique used in my research on the RISDA scheme in 2017.

Based on the description above, the research team made textbooks to support the improvement of the quality of learning, especially for Visual Communication Design 2 courses, generally for Illustration, Media Illustration, Graphic Method, DKV 1, DKV 4, DKV 5, and Final Project courses. As a continuation of the research that had been done previously on the 2017 RISDA scheme entitled "Visual Design and Souvenir Products for the" Veteran "National Development University, East Java.

Material and Methods

This study uses a qualitative method. Qualitative research is a process of predicting and confirming, correcting and modifying, suggesting, and defending. Qualitative research is a creative process of processing data so that the analysis pattern becomes clear (Daymon, 2002). This research is divided into 2 stages, namely the creation stage and the publication stage. Furthermore, it can be seen in figure 1.

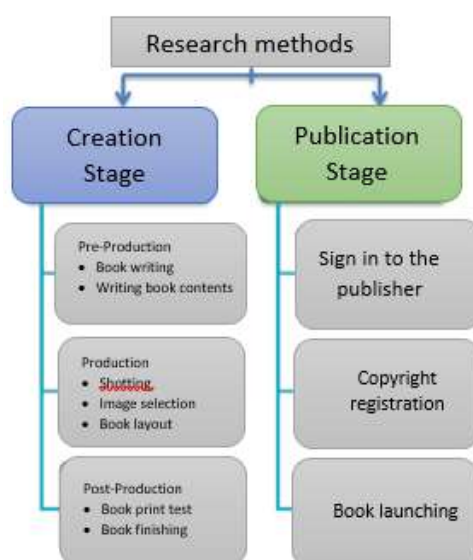


Figure 1. Research methodology

Creation stage

At this stage, the research process is divided into 3 parts, namely pre-production, production, and post-production.

1. Preproduction. At this stage, the creation process consists of 1) Babbling the contents of the book. Pembabakan is intended to classify the course process of Visual Communication Design 2 at each meeting which is adjusted to the RPS; 2) Writing the contents of

the book, is done to write all the sentences in the contents of the book and make questions and assignments to train student knowledge; 3) a detailed explanation of the screen-printing press practice.

2. Production. The production stage consists of; 1) Taking pictures, is done to complement the contents of the writing in the book. The picture in question is a photo of the screen-printing process so that the material presented is easier to understand by students. Apart from photographing the screen-printing process, at this stage a manual drawing process is also required to explain the material that cannot be reached using photo media; 2) After the image-taking process is carried out, the next step is to select the result of the photo or image. This selection is selected according to the level of photo clarity, photo angle, and choosing a communicative photo; 3) After the photo image is selected, the next step is to arrange the photos and text which are in the layout using the DKV principle by taking into account balancing, unity, and composition. The layout arrangement process is related to the composition and position of the image, narration for image description, page numbers, and other layout elements. So that the flow of the book can be read and seen easily. Layouting also serves as the key to the successful delivery of information. A good layout using a font size with good readability makes the contents of the book more digestible and easy to read. The arrangement of these layouts is by the parts of the story that have been arranged at the time of Babylon. Layout process using Photoshop software.
3. Post-production. The post-production stage includes; 1) Test printing, which is to test the print of 1 book to see the design and layout of the book as a whole, maybe there are broken images so that they cannot be seen, with this test printing, the broken images can be replaced. Apart from that, reading the printed test result book is also necessary, this is to correct if there is a sentence or writing that is wrong so that it can still be justified; 2) After the test printing is carried out, the next step is finishing the book by correcting the contents of the book that was printed 1 and then revised. Book corrections include pictures, writing, layout, page checks, colors. After finishing the book, the book can be mass printed. Printing is done using an offset printing technique using black and white. Offset printing of at least 750 copies. After the files are printed, they are arranged according to their respective sections and pages and bound (binding) using the softcover technique. The choice of print and finishing materials also affects the appearance of the book. For the book cover, use art paper material. For the contents of the book, use HVS paper. The selected paper is white to display interesting details from the sharply presented image. Several pages 100.

Publication stage

1. Publisher Registration Registration to publishers is carried out with agencies that have collaborated with LPPM UPN East Java, namely Indomedia Pustaka as well as ISBN registration.
2. Copyright Registration. Copyright registration is carried out after the book is ISBN registered and published.
3. Book Launching is carried out among students, especially students who are currently taking Visual Communication Design 2 courses. Generally, for students of Illustration, Graphic Method, DKV 1, DKV4, DKV 5, Final Project, and also the general public who need this book. The launch was carried out at the UPN "Veteran" East Java campus.

Results and Discussion

The aspects of this book are a textbook that can be used as a guide or guide for the teaching and learning process for Visual Communication Design 2 courses. Apart from being a handbook

for Visual Communication Design 2 courses, this book can also be used as a guide/support for students who wish to complete their assignments in the course of Illustration, Illustration Method, Graphic Method, DKV 1, DKV 4, DKV 5 and also Final Projects. The general public can also use this book because the content of this book discusses the production of souvenirs that can be sold in general and mass. The advantages or uniqueness of this book are:

- Unprecedented textbooks for Visual Communication Design 2 courses
- Textbooks that support Visual Communication Design courses 2.
- A supporting book for students to complete their assignments in the form of souvenirs. Tasks in the form of souvenirs are usually in the course of Illustration, Graphic Method, DKV 1, DKV 4, DKV 5, and Final Projects.
- The content of this book contains the corresponding RPS for Visual Communication Design 2 for one semester. The contents of Visual Communication Design 2 RPS include (1) Definition of Visual Communication Design; (2) data collection techniques; (3) Logo Material; (4) Semiotics; (5) Graphic Standard Manual (GSM); (6) Arranging Layout; (7) Supergographical; (8) Visual Identity; (9) Sign System; (10) Illustration Design on Souvenir Media; (11) Implementation of Illustration Design on Souvenir Media with Screen Printing Press Technique; (12) Screen Printing Press, Transfer Paper, Dark and Light Pigment.
- Even though it is a textbook for certain subjects, this book can also be used as a guide for the general public who want to learn or produce souvenirs. So that this book can also be sold in general outside the UPN "Veteran" East Java campus.
- Book size 17 x 24 cm according to the standard size of the publisher.

Book Content The research that has been carried out has resulted in DKV 2 textbooks with the following content:

- **Front Cover** Cover the book using a Soft Cover. Contains the title of the book, snippets of images in the book, author's name, publisher logo. Furthermore, it can be seen in Figure 2.



Figure 2. Textbook front and back cover designs

- **Title Page** The title page will contain repetitions of the book title and author's name as on the front cover.
- **Impressum.** Contains information such as title, publisher, author, editor, publication year, printing stages, legal number, and others.
- **Foreword** Contains a foreword from the lead researcher/book writer discussing the contents of the book and a little flashback about previous research.

- **Table of Contents** The content here will contain the arrangement of the chapters which are arranged as a whole so that it can make it easier for readers to browse certain content sections in this book.
- **Book Contents** This page is the core part of the book which contains several chapters. The contents of the book are adjusted to the RPS for DKV 2 courses for 1 semester, then it can be seen in Figure 3.



Figure 3. Book content design

The contents of the textbook are as follows:

- **CHAPTER 1: Definition of Visual Communication Design** (Brief explanation of the meaning of DKV as a reminder of DKV 1 material). Before it was known as Visual Communication Design (DKV), this field was often called graphic design. The scope of graphic design that is only oriented to dual-dimensional graphics is considered less suitable to define the increasingly diverse media that uses IT-based visual communication. The term DKV emerged when graphic design was increasingly in touch with digital technology. The rapid development of technology and communication has influenced the growth of various needs for information and visual media (multimedia) which require skills in the field of visual communication. Current graphic design does not only concern graphic elements, so Supriyono (2010) argues that in Visual Communication Design in some cases the term DKV is considered more accommodating to the increasingly widespread development of the graphic design. Visual communication design is a discipline that aims to study communication concepts and creative expressions through various media to visually convey messages and ideas by managing graphic elements in the form of shapes and images, lettering, color composition, and layout. / change). Thus, the idea can be accepted by the person or group who is the target recipient of the message (Kusrianto, 2007).
- **CHAPTER 2: Data Collection Techniques** (Definition and types of data collection techniques). There are three main ways to collect primary data in quantitative research;

by observing behavior, by experimentation (in the laboratory or the field), or by surveying (that is, by questioning people) (Schiffman, 2007). As a researcher, you can change your role during the observation process, for example starting as a non-participant and then moving on to become a participant or vice versa.

- CHAPTER 3: Logo (Understanding Logo, Gestalt Theory, Golden Ratio Theory on Logo). A logo or picture mark is an identity that is used to describe the image and character of an institution or company or organization. Meanwhile, a logotype is a wordmark which is the name of an institution, company, or product that appears in a special written form to describe its commercial characteristics. In addition to building a corporate image, logos are often used to build spirit internally among the components in the company.
- CHAPTER 4: Semiotics (Explanation of semiotics which is closely related to logos). Semiotics (Semiotics) or Semiology is the science of signs or symbols. To illustrate a message or information visually, an image is needed that will be interpreted by everyone who will receive the message. Semiotics can be said to be the science of understanding the general context in the society that will be the target audience.
- CHAPTER 5: Graphic Standard Manual (GSM) (Understanding GSM and how to make GSM). Graphic Standard Manual (GSM) is a Brand guideline or Graphic Standard Manual is a book that contains logo rules, font type selection, layout, pattern, and all elements used by a brand or company to build a strong identity. Usually, these rules are used as a basic guide for designers to stay out of the way and be consistent with what a brand looks, sounds, and feels.
- CHAPTER 6: Arranging Layout (Understanding layout and how to understand layout in DKV). The layout is a layout of design elements in a field in a particular medium to support a message or concept (Rustan, 2009). In making layouts, there are invisible elements that have a very important function in forming unity from all other layouts, namely margins and grids.
- CHAPTER 7: Supergographics (Understanding Supergographics and how to make them). Supergraphics is a visual form that can support the image of the brand and are usually sourced from the logo. Supergraphics is very important to use to maintain the uniformity of a visual identity. Supergographs can be in the form of shapes, colors, and also other visual elements (Bell, 2009).
- CHAPTER 8: Visual Identity (Explanation of Visual Identity which includes graphic images on several media). A visual identity is a form of verbal communication through visuals of a brand including all related designs such as logos, letterheads, business cards, packaging, and so on. Visual identity must be clearly and consistently communicated to compete in the highly competitive world market. The main key to visual identity is the logo. The purpose of a visual identity is to identify, differentiate, and build an image in the minds of consumers to create loyalty or trust in the brand (Landa, 2011).
- CHAPTER 9: Sign System (Definition, function, and application of the sign system). The sign system is a system that regulates the flow of certain information or messages using sign media as a message. The sign system is closely related to visual elements and architectural elements as the medium of the sign system. The sign system itself is part of a term known as wayfinding, which is a method that regulates or directs people through the signaling system media to follow what is desired (Sachari, 2004).
- CHAPTER 10: Illustration Design on Souvenir Media (Definition of souvenir media related to DKV science. What media are related and needed by DKV. Making illustrations and coloring processes for implementation purposes on DKV media using screen printing techniques). Souvenirs are an eye mark; memories; a souvenir. Souvenirs are generally made by companies as gifts given to loyal customers, partners, guests, company

managerial ranks, etc. However, some souvenirs are packaged exclusively and sold to consumers. Examples of souvenirs are t-shirts, mugs, wall clocks, hats, umbrellas, drinking bottles, pens, etc. Souvenirs are part of the merchandise, namely goods provided or sold by companies to consumers because souvenirs contain information about the company such as logos, company names, and other company identity information.

- CHAPTER 11: Implementation of Illustration Design in Souvenir Media with Screen Printing Press Techniques (This chapter includes the definition of screen printing, the definition of screen printing, and the prospects for printing in the industrialized world). Screen printing itself is the process of transferring an image to a medium, for example, clothes. Based on the processing process, screen printing can be divided into two types, namely manual screen printing and digital screen printing.
- CHAPTER 12: Screen Printing Press, Transfer Paper, Dark and Light Pigment. Screen printing equipment includes basic equipment and aids for screen printing. The screen-printing process of colored and white t-shirt souvenir press uses pigment ink transfer paper.
- CHAPTER 13: Sublime Transfer Paper Press Screen Printing. The screen-printing process of souvenir mugs, umbrellas, hats, tumblers, etc. using sublimation ink transfer paper. The definition of sublimation screen-printing itself is the process of transferring an image from paper to fabric with the help of a heat press. This printing process uses a special sublimation printer and inks. Sublimation ink is a water-based ink which has temperature sensitive properties where the ink will turn to gas under the influence of high temperature.
- Bibliography: This section contains the source of books that are used to make an illustration book.
- Author Profile: This section will contain a brief history or bio of the author/composer so that readers can briefly know the identity of the author/compiler.
- Back Cover: This section will contain a summary/synopsis of the book that briefly explains the contents of this book.

Conclusion

The conclusions that can be drawn from this research are as follows:

- The screen-printing press technique on the media can be implemented into the souvenir production process
- The quality of printed media learning can be improved through the preparation of textbooks as a learning resource for students.

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