

# Developing the Ability to Design a Residential House Through an Interior Textbook Integrated with Research Results

*by Dyan Agustin*

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## Developing the Ability to Design a Residential House through an Interior Textbook Integrated with Research Results

Dyan Agustin<sup>1\*</sup>, Niniek Anggriani<sup>1</sup>, Tasya Azzahra<sup>1</sup>, Sabrina Ayu K<sup>2</sup>

<sup>1</sup>Architecture, Architecture and Design Faculty, Universitas Pembangunan Nasional "Veteran" Jawa Timur, Indonesia

<sup>2</sup>DKV, Architecture and Design Faculty, Universitas Pembangunan Nasional "Veteran" Jawa Timur, Indonesia

*\*Corresponding author:*

E-mail:

[dyanagustin.ar@upnjatim.ac.id](mailto:dyanagustin.ar@upnjatim.ac.id)

**ABSTRACT**

This textbook discusses the principles used in designing an interior / interior environment in a building. The building which is the object of discussion is the residence. This is intended so that students have provisions in designing space in the interior of a residence. Residential houses have efficiency in terms of design because if they are not designed properly it will cause discomfort in living. The things that will be discussed include, how to organize the space in a residence, how to choose colors that can create a broad and aesthetic impression, how to design good and ergonomic furniture that suits the house. The method is used in two stages, namely the creation stage and the publication stage. The creation stage includes pre-production, production and, post-production. Meanwhile, the publication stage includes book publishing, book launching, and textbook copyright management. This textbook will be useful for students of the Architecture study program Interior and Architectural Design 3. It is hoped that students will understand more about the interior of a residence with an explanation and accompanied by examples from the results of previous research.

*Keywords: Textbook, interior, house, research*

### Introduction

Interior learning is learning that specifically concerns the inside of a building. Interior science is born from the development process of architectural complexity. The interior comes after the formation of the function and quality of space by architecture (Smith, 2004). Interior design concerns the problem of human activities because humans spend part of their life in space and aims to create a dream room and its supporting elements (Nurmianto, 2004).

This Interior course is a practical course of changing ideas and ideas for interior space as a basic foundation for students in designing further. Because as a basic provision for students, the position of this subject is quite important and is given to architecture students in semester VI with a weight of 3 credits. The emphasis of this course is on the ability of interior design skills properly and correctly by considering the basic concepts of planning and design to achieve a design that is functional, comfortable, safe, and beautiful with case studies of residential houses.

At UPN, there is currently no special interior study program so Architecture students need to study and explore interiors. Because an architect graduate can work as an interior designer. Likewise, as an architect graduate, in addition to designing a building as a container, he must also be able to design the contents in the building or what is called the interior, to achieve perfection in designing the building as a whole.

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The preparation of this textbook, it is supported by several studies conducted by researchers starting in 2012 until now. The results of the research are used to support the content to improve the quality of learning in the Interior course. The research that has been done previously by researchers includes in 2012 the RISDA program with the title Transformation of Residential Functions as a Result of Household-Based Business (HBE) in Kampoeng Batik Jetis Sidoarjo. In this study, the results show that for business houses there is a change in the function of space in the interior due to business activity. The results can be stated in point 6 about the spatial relationship. Then in 2014, the Teknova program continued with research on small-type houses in flats with the title Multifunctional Furniture Model for Flats Type 18 m<sup>2</sup> in Penjaringan Sari I Flats in Surabaya. In 2016 RISTI with the title Effectiveness of Arrangement and Design of a Joint Kitchen for Residents of Type 18m<sup>2</sup> Flats, and 2018 RISDA with the title Study of Home Furniture Arrangement Type 21m<sup>2</sup>. Case study of Taman Gunung Anyar Surabaya housing. These three studies are focused on furniture which is part of interior learning in point 7 about furniture and room decoration. The results obtained show that the role of the furniture is very important for the comfort of living in a residential house, especially for small type dwellings (Agustin et al., 2018). Meanwhile, in 2019 the research was continued with skin RISTI with the title Model of Effective Growing House Design for Housing Type 21 m<sup>2</sup>. The result of this research is to produce time and cost-effective steps to develop a type of 21m<sup>2</sup> house that can be used as a guideline for architects, interior designers, and the general public. This guide can be included in the lesson at point 11 about the design process and the relationship between spaces.

## **Material and Methods**

### ***Research implementation methods***

#### *Creation stage*

The creation stage is the initial stage that will be carried out by dividing the order as follows:

#### *a. Pre-production*

At this stage, the first thing to do is classify the contents of the book by linking the Interior lecture process with the RPS. After it is appropriate, then write the contents of the book. Arranged sentences that support the meaning and knowledge to be conveyed to students and equipped with assignments and questions to train student knowledge.

#### *b. Production*

At the production stage, photo documentation is carried out by taking photos of the required interior objects. Furthermore, the process of drawing interior work drawings and perspectives is carried out by media computers using CAD and 3Dmax programs. This process is carried out in the design lab with the help of several students. After the images needed to support the discussion are ready, the next step is to lay out the contents of the book using Corel and Photoshop software. The resulting image must have a high resolution so that the image when printed is good and not broken.

#### *c. Post production*

The next stage is to do a printing test, a book print trial, to see the overall book layout results. Besides that, it will also be able to be seen writing by writing so that it is certain that there are no typos. With this test printing, it will be possible to find broken or imperfect images and can be repaired immediately before printing in large quantities. After that, the final finishing of the book is carried out by revising the findings from the test printing results. The corrections made include looking at the quality of images, writing, checking pages, colors of images, and layout. The requirement for offset printing is a minimum of 750 copies. Book printing will be done using the softcover binding technique to make it look nicer and more elegant. The material chosen for the softcover

is art paper. For the contents of the book, use white HVS paper so that you can display the detailed images. The number of pages created 200 pages.

#### *Publication stage*

##### *a. Registration to the publisher*

One of the agencies that have collaborated with LPPM UPN Veteran East Java is Indomedia Pustaka. After the communication was made, the MOU was made as well as the cooperation and ISBN management

##### *b. Legality*

After the book is published and has an ISBN, the next step is in the process of obtaining a Copyright submission for making books

##### *c. Promotion*

This promotion stage includes offline and online book launching. For offline launching, it is carried out on campus among students, especially students in interior courses, SPA 3, Behavioral architecture, Final Projects, and also the general public who need this book. Meanwhile, online will be posted on social media including IG and Facebook as well as a link to online book sales.

The progress that the researcher has done is up to the pre-production stage in writing the contents of the book. Several chapters have been worked on covering CHAPTER 1 and 2. Furthermore, we will continue to write the complete book contents. Meanwhile, the process of refining the contents of the book requires funds in the production process.

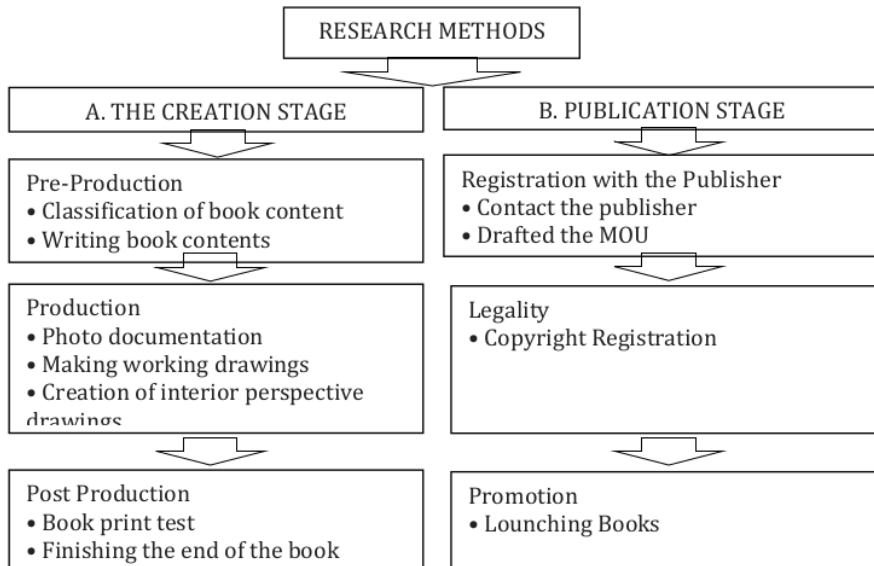


Figure 1. Research Methods

## Results and Discussion

### **Book content**

The research that has been carried out has resulted in an Interior textbook for homes with the following contents:

#### *a. Front content*

The selection of images on the cover is based on images that can imply a description of the content in the textbook. In this case, a cutout image of the interior space is selected which shows the furniture and human activities in it. Images are packaged in graphic format to make them look more attractive and following student characters. Book cover using A4 size Soft Cover which contains the book title, snippets of images in the book, author's name, and publisher logo. The color used is a dark blue, orange, yellow, and white background.



Figure 2. Book cover

#### *b. Title page*

The title page contains the repetition of the book cover and the author's name as on the front cover. The title page serves as an explanation for the book title before getting to the core of the book.

#### *c. Impressum*

Contains information such as title description, publisher name, author name, editor name, publication year, printing stage, legal number, and others. For publishers in collaboration with Indymedia Pustaka which has experience in the field of book publishing.

#### *d. Foreword*

Contains a foreword from the lead researcher/book writer who discusses the contents of the book and a little flashback about previous research. The preface also explains the contents of each chapter in the textbook at a glance so that readers have an overview of the contents of the book.

*e. Table of contents*

The content here contains the arrangement of the chapters which are arranged as a whole. This Interior for Homes textbook, it consists of 12 chapters and several sub-chapters. A table of contents will make it easier for readers to browse certain content sections in this book.

*f. Book contents*

This page is the core part of the Interior in a Home textbook which contains 12 chapters. The contents of the book are adjusted to the RPS for Interior subjects for 1 semester. The following is the contents of the Interior textbook in a Residence:

- Chapter I. Definition of the interior and design thinking schemes

Chapter 1 discusses the understanding of the interior from various figures and sources. Also explained the notion of space which is much related to the interior. Meanwhile, the design thinking scheme explains how the mindset process of an interior designer in carrying out the design process.

- Chapter II. Interior history

Chapter 2 discusses the history of interior development from the Egyptian period to the Industrial Revolution Period. In the history of global interiors, several figures were very influential in the development of the interior design. Whereas in the archipelago, we can explore the history of interior development from the architecture and interior space of traditional houses scattered in the territory of Indonesia.

- Chapter III. Interior design elements and principles

Chapter 3 discusses the elements and principles of the interior which include lines, planes, shapes, big differences, light-dark colors, material characters, composition, rhythm, balance, proportion.

- Chapter IV. themes and concepts in the interior

Chapter 4 discusses various themes and concepts that can be used for the interior design process, for example, modern chic, Scandinavian, retro, contemporary, etc. And discussed the characteristics of each of these themes.

- Chapter V. Ergonomics and anthropometry

Chapter 5 discusses the important role of ergonomics and trigonometry in the interior design process because by paying attention to ergonomic and anthropometric factors, space users will get productivity and efficiency, which means a saving in the use of space. The discussion concerns the size of the human body and human movement

- Chapter VI. Space Relations

Chapter 6 discusses how to arrange space according to human needs. Described several ways to be able to arrange the floor plan in space to achieve a comfortable and aesthetic atmosphere and spatial relationship in the interior

- Chapter VII. Furniture and Room Decoration

Chapter 7 discusses the various forms and materials of furniture and decorations that are suitable for certain themes. Also discussed are multifunctional furniture that can be used for several activities at once.

- Chapter VIII. Interior psychology

Chapter 8 discusses how the interior atmosphere can affect the psychology of the occupants and what things can be done to influence the occupants' behavior.

- Chapter IX. Physical Composition of Space

Chapter 9 discusses the physical composition of space including the character of the floor, wall, and ceiling material. Also discussed how to install and the atmosphere displayed in each material.

- Chapter X. Lighting, Ventilation and Acoustics

Chapter 10 discusses how to arrange good lighting, ventilation, and acoustics to achieve comfort and aesthetics in the interior.

- Chapter XI. Interior Design Process

Chapter 11 discusses how to process the design of an interior project from exploring ideas to drawing designs

- Chapter XII. Implementation of Interior Design Designs

Chapter 12 discusses the application of interior design designs, including some examples of interior work drawings and how to describe an interior perspective

*g. Bibliography*

This section contains the source of books that are used to make an illustration book.

*h. Author Profile*

This section contains a brief history or bio of the author/composer so that readers can briefly know the identity of the author/composer.

*i. Back Cover*

This section contains a summary or synopsis of the textbook that briefly explains the contents of this book.

**Conclusion**

1. This Interior Textbook for Homes is very much needed to support the learning process for Interior Courses in the Architecture Study Program.
2. The content of the textbook consists of 12 chapters, where some of the chapters are included in the results of previous research so that a more detailed discussion can be done because it is based on an observation

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