

Conceptual Design of Modern Minimalist Dining Table Inspired by British Military Uniform

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Abstract

Minimalist interior design is popular in Malaysian modern homes as it is neat, organized, and visually calming. Dining table with minimalist design is one of the most attractive design that consist of less elements, less clutter, less patterns and emphasizes the need for more space. The aim of this study is to design dining table influenced by modern minimalist design suitable for apartment residential. The design of dining table involves the collection of data on the characteristics of minimalist dining table, development of the ideation in designing process specifically on the direction for design concept, and development of visual research. The study purposed a new design of minimalist dining table for consumers especially those with limited space of dining room.

Keywords

Minimalist, Simplicity, Dining table, Furniture design

1. Introduction

In Malaysia, increasing of citizen population has leads on the high demand of housing, especially on low-cost type. Most of the low-cost houses have small space area with limited outdoor and indoor spaces that need right selection and decoration idea. Thus, minimalist is among the most popular selection of interior design for this type of houses. Minimalism design was reported as one of the most significant and influential movements of the 20th century (Anonymous, 2016). Minimalist home designs creates and cultivate a feeling of emotional harmony through sharp, clean lines, simple primary colors, and efficient use of space that serves both the aesthetic and functional aspects of the home (Tan, 2015). The selection and arrangement of furniture in a space is strongly influenced by the functional needs and creativity of the users (Zulkiflin and Mohammad, 2012). Dining table is one type of furniture that has high demand from the users.

Dining room is a room used for eating meals (Merriam-Webster, 2018). It is a room for consuming food or area arranged for dining. Dining room located in the indoor room where people have their meals, or a room where meals are served. For most of people, the dining room is importance where, it is the place for entertain guests and serve family meals. Thus, it is important to get the suitable design of dining room. For instance, small dining room in apartment or flat need to consider on the limited space compared with double-storey house, condominium or bungalow, with more space for dining room.

Dining furniture is not limited to table or chair, but it includes kitchen, dining room set, dining room chairs, sideboards and barstools. Dining table is a table, especially one seating several persons, where meals are served and eaten, especially the major or more formal meals (Dictionary, 2018). The dining table is the central element around in home which everyone gathers for family meals. It comes in a wide variety of materials and styles, from wooden table classic styles to more modern glass and metal tables. Size for dining table depends on number of seating that can be fit. Usually set table is double, four, six or more chairs depend on the size and design of dining table. The best selection when pairing this dining set furniture can give the harmony dimension and styles in dining room. The design for limited dining room usually becomes room that overlooked the layout and aesthetics. Thinking about dining room furniture arrangement does not only mean calculating dimensions, it also means evaluating the available space (Gomez-Zerpa, 2017).

Meanwhile, minimalist concept is the simplicity of style in artwork, design, interior design, or literature, achieved by using the fewest and barest essentials or elements to maximum effect (Wijaya, 2017). Minimalism aims for simplicity and objectivity. Minimalist design is a design at its most basic, removing forms and elements, such as colors, shapes and textures that are not needed for a design to function (Preechavutinant, 2015). The theory of minimalism with respect to architecture is about achieving better design through simplicity – simplicity of form, space, materiality, detail, and color. The unofficial mission statement for minimalist design, Ludwig Mies van der Rohe famously said “Less is more” to describe his aesthetic sense of having every element serve multiple purposes both visually and functionally. Buckminster Fuller later reworked the phrase to “Doing more with less” and then Dieter Rams changed it to “Less but better” (Wijaya, 2017).

Minimalist design was influenced by certain things that came before it. The roots of minimalism can be traced to a three key periods namely De Stijl art movement, architects like Ludwig Mies van der Rohe, and traditional Japanese design. Japanese culture is infused with Zen and simplicity. The traditional Japanese design, infused with culture and Zen (Anonymous, 2016). Minimal design and architecture roots in the works of De Stijl, its rectangular forms and primary colors, as well as the designs by the pioneer of modern architecture, Ludwig Mies van der Rohe (Anonymous, 2016) that more focus on using modern materials like steel and plates of glass, having a minimal structural framework, and also including lots of open space. Therefore, the main objective of this study is to design a modern minimalist dining table that suitable for apartment residential especially with limited space of dining room.

2. METHODS

Conceptual design is the very first stage of the product design process, where drawings and other illustrations or models are used. It serves to provide a description of the proposed product, in terms of a set of integrated ideas and concepts about what it should do, behave and look like in a way that is understandable for users (Jensen, 2017). Figure 1 shows the steps involve in product design process.

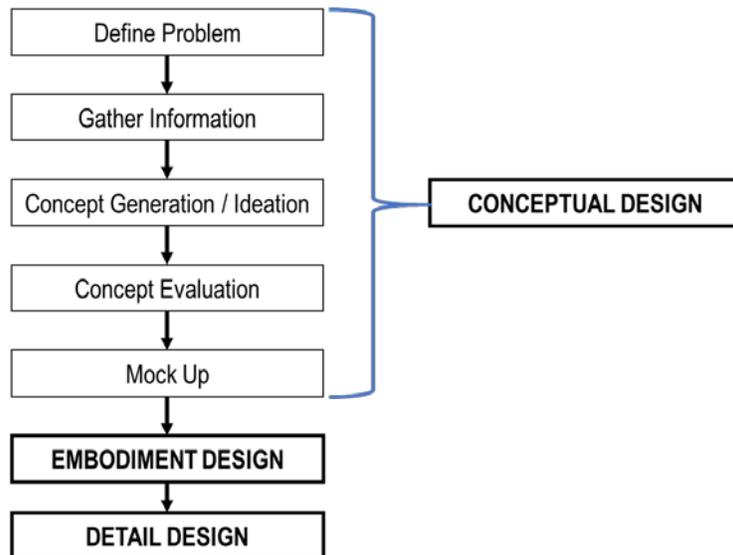


Figure 1. Product design process.

The process start with define the problem which is identify and gather the information and translate it into a problem. In this study, the main focus or problem that the authors want to encounter is to design a modern minimalist dining room that can fit well in small or limited space of dining room especially for small apartment residential space. The information was gathered by collecting the information for all possible sources involved in approaches, ideation and possible solutions (decision-making). The ideation of this study was inspired by the British Military Uniforms. Therefore, there are few ideations were made from the interpretation of British Military uniform. Concept generation and evaluation ensure that the product can perform all of the major functions. This may be done by sketches, figure or diagram, mockup prototype models, or by a detailed written description of the concept. Before



Figure 3. Design composition.

3.3 Stage 3: Thumbnail and Ideation Sketches

Ideas from visual research facilitate the thumbnail sketches and design ideation. A thumbnail sketch is a vital preparatory step in drawing and designing. Thumbnail sketches are some simple drawings, abbreviated drawings done spontaneously, rapidly and with no corrections; usually very small sketches (Figure 4). The goal of thumbnail is to put down concepts of dining table with different perspectives, tones, locations, sizes, and features. Set the direction selection helps a lot for ideation sketches. British military uniforms and marching band uniforms become the focuses direction in ideation sketches concept (Figure 5) for minimalist dining table.

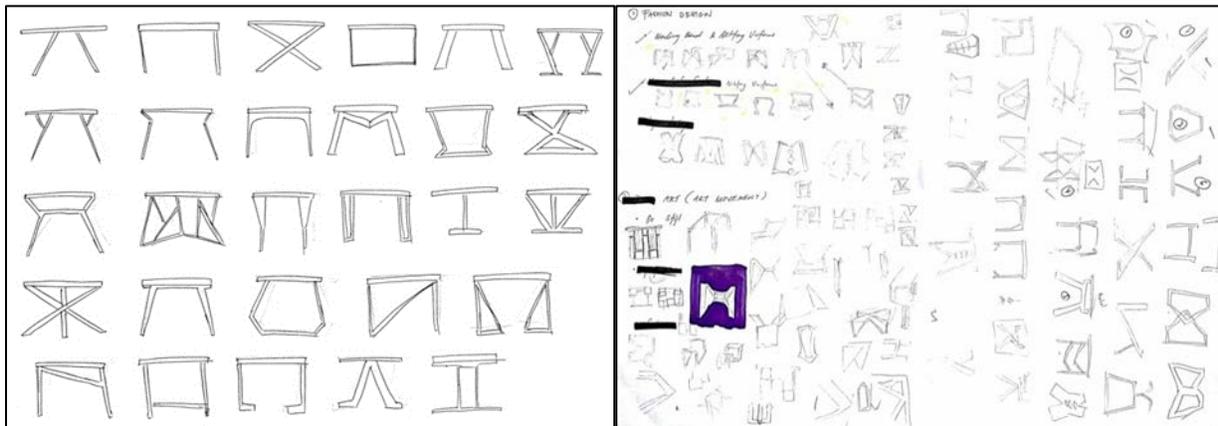


Figure 4. Thumbnail sketches based on physical reality.

3.4 Stage 4: Sketches Development

The design development was made from thumbnail sketches, direction concept, and ideation sketching as illustrated in Figure 5. These developments discovered the best ideas and solution to any problems arises in ideation sketches stage. The potential designs of dining table are selected from the development of sketches for the next stage namely as mockup development stage.



Figure 5. Design direction: Marching band uniforms and military uniforms



Figure 5. Sketches development.

Based on the sketches in Figure 5, the sketch developments were inspired by two types of British Uniforms; marching band uniforms and military uniforms. The main focus of elements that being considered in design the modern minimalist dining table are the uniform design (the geometry of lines/pattern) as well as its colors. From these sketches, the British Military Uniform design (Figure 6) was selected for further refinement and development due to its aesthetic, modern, simplicity, practicability, and commercial value of this design to be manufactured.

3.5 Stage 5: Mockup Development

Mockup is a scale down product with smaller size, based on design selection and the sketches. The number of mockups can be done more than one design. Generally, it is used for demonstration, design evaluation process, and to understand the analysis requirement. Mockup can be used to test whether the design fits the typical human shapes and sizes called ergonomic. Designs that failed the test may not be practical to use or produce. Development for mockup involved the testing of various colors, finishing, and design details which cannot be visualized from the initial drawings and sketches. Figure 6 presents the mockup images of the chosen design as discussed in Stage 4 previously.

The morphological chart is one of the methods used to generate the alternative ideas in an analytical and systematic manner of a design solution for each under-developed product. It will widen the search for potential new solutions for final decision-making for each element. The morphological method for this study is tabulated in Table 1.

From Table 1, there are many potential combinations that can be obtained. However, only certain combinations are possible to be considered. Based on few criteria such as modern looks (aesthetic appearance), practicability for mass production, and effective functionality, the final combination of alternative concepts was made. Wood made from engineered or wood composite such as plywood is chosen as tabletop material due to its durability, lightweight, and cost-effective (reasonable price compared to solid wood) of material. There are hundreds of laminating patterns for plywood and also available in various colors and finishes. Meanwhile, veneer wood adhered for strength and can

improve the durability of tabletop significantly. As for table legs, metal made from hollow stainless steel is picked due to its strength, sturdiness, modern looks, elegance, and easy to shape for mass production. Selection of suitable material for table leg is crucial as this will decide the capability of the dining table to withstand certain number of load and force. On top of that, stainless steel also can be manufactured into almost any shaped that meets the requirement of the design in this study.

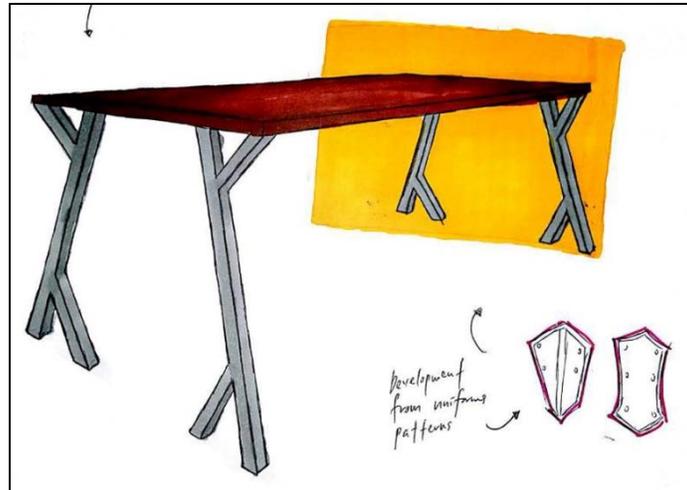


Figure 6. Selected dining table design.



Figure 6. Mockup of chosen design in different tabletop colors.

Button fasteners are used for this design. As the tabletop expands and contracts, button fasteners are free to slide within the groove. Grooves can be made along the entire apron, or to be slightly longer than the button width. Easy to make and install, it allows movement in two directions (along the apron and perpendicular to it).

Table 1. Morphological chart

Item	Alternative concept		
	I	II	III
Material for tabletop	Wood	Ceramic composite	Tempered glass
Material for table leg	Wood	Metal	Tempered glass
Fastening method	Bolt and screw	Button	Screw block
Capacity	Maximum is 6 persons		

4. CONCLUSIONS

This paper introduced the conceptual design of modern minimalist dining table inspired by British Military Uniform. Besides that, limited space of dining room area for small apartment residential unit is the main focused of the design ideation selection that needs minimize size of furniture selection and decorating to utilize the small space dining room. Minimalism is the simplicity of style in artwork and design, achieved by using the fewest and barest essentials or elements to maximum the effect. This study used design process as a tool and the outline approaches in furniture designing process. Modern minimalist furniture design contain function practicality and aesthetics value (appearance) which require systematic conceptual design including ideation, product specifications, mockup of selected dining table design. The next stage of this project is embodiment design which include the detail drawings of the selected design.

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