



Furniture Utilization With Multiple Choice - Study Table Cum Bed Side Table

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Abstract : The idea of maximum space utilization has become popular, so there is a rising need in the market for small, multipurpose furniture items. This has spurred research and creativity aimed to meet the needs. These elements improve effectiveness as well as offer an answer for space conservation. The objective of this investigation is to look at a functional bedside table and a study table that combines functionality with space saving. For people in small studio or apartment living, these two pieces of furniture provide answers. It also offers practical answers for those living in communal spaces like flats, hostels, paying guest houses, Etc. The design, advantages, and given solutions of the convertible furniture piece are thoroughly investigated in this document. It also considers the effect of this furniture on space performance, usefulness, and advantages in Interior space. Thanks to client surveys and evaluations. The benefits, flexibility, and adaptability of the furniture are looked at together with usage patterns. It also demonstrates how the piece of furniture reduces mess, improves function, and lowers cost. This is a decent answer for contemporary living conditions, unsentimental functionalism, and aesthetics in small spaces nowadays.

Keywords : space optimization, hybrid furniture, versatility, bedside table, study table, storage solution.

1. INTRODUCTION

In today's fast-paced and spirited world, urban living spaces are getting compressed and smaller. In these metropolitan Cities, spaces are getting smaller and more expensive. Therefore, efficiently utilizing the available space has become more prominent. There is an increasing requirement for multipurpose and multifunctional furniture as people living in small apartments, flats, hostels, and paying accommodations are growing. Hybrid or innovative furniture is a kind of furniture that combines two or more functions in one compact furniture piece. The study table cum bedside table is a classic example of such pieces. This multipurpose piece not only emphasizes space saving but also minimizes mess or clutter in the living space.

1.1 These characteristics make multipurpose furniture more popular these days:

Space saving: The integration of two uses on a single piece of furniture increases its utility and lowers space requirements.

Multifunction furniture: Multifunction furniture allows for space saving in top areas and also offers beauty in contemporary interior designs; they also serve at least two purposes simultaneously.

Material efficiency: It plays an important role in the lifespan of the furniture, Functional furniture is made of material that is strong, cheap, durable, and lightweight.

Now in vogue are furniture items that give comfort and support to the user; these permit people to relax meanwhile they work. The study centers around the study table cum bedside table, It also highlights how the furniture piece contributes to space saving and serves as an effective storage outcome. By analyzing the effect of multifunctional furniture on interior design and space planning, the paper gives a general understanding of how space-saving furniture works or impacts today's compact living environment. It also provides a solution to the modern aesthetic and style of interior design. This study examines how every square foot can be utilized effectively in urban settings.

2. RESEARCH METHODOLOGY

2.1. Elements:

The flexible furniture of the study table cum bedside table is made using inexpensive and long-lasting materials. The components were chosen with much deliberation to make efficient use of space, offer both visual attraction and robustness and strength.

2.1.1 Plywood:

Chosen for their low weight, longevity, and ease of customization, the main material for the structure was quality 18mm thick plywood. The plywood offers stability and maintains a sleek, modern appearance.

2.1.2 Drawer sliders:

Heavy-duty drawer sliders improved smooth and uniform drawer movement. It assured simple access to storage areas and long-term use.

2.1.3 Fastener and screw:

Carefully chosen, high-strength bolts connected the plywood sheets. It is mentioned for better structural stability and strength. Ergonomic handles were installed in drawers and sections. It provides a nice grip and creates a clean visage.

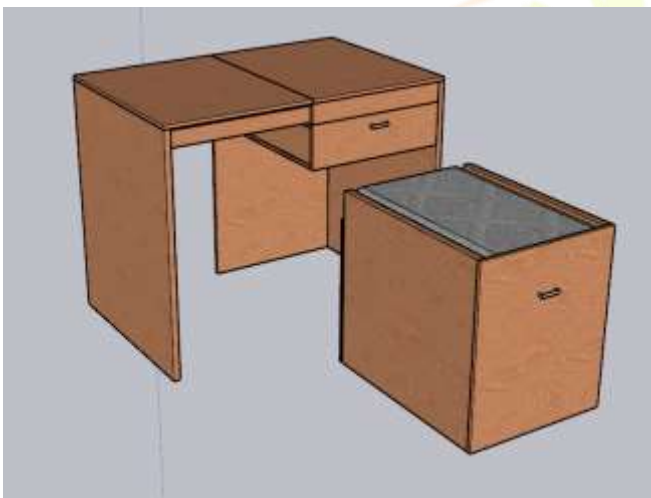
2.1.4 Finishes:

The surface was covered with top-notch laminate for strength. High-density foam was employed in seating areas to be more comfortable and functional. It ensures that visual attractiveness is emphasized and damage is minimized. From fashionable to simple, the laminate was chosen to blend with many different interior design aesthetics.

2.2. Design Process:

2.2.1 Visualization:

2D and 3D sketches and models were created using Sketchup and Autocad software. Their design was meant to make the most of their functionality and space saving features. The final design aimed to seamlessly combine functional storage compartments with a bedside table and study table.



[Figure 1: 3D Drawing of study table/bedside table]



[Figure 2: 3D Drawing of study table/bedside table]

2.2.2 Building and Modeling:

The plywood cutting followed the design specifications carefully. Screws help produce parts that are precisely balanced and strong. To assure comfortable operation and ergonomic use, drawer channels and grips were installed. Special emphasis was given to the ease of use, aesthetic finishing, and structural stability.



[Figure 3: cutting]



[Figure 4: Grinding]



[Figure 5: Joining]

2.2.3 User surveys as well as evaluative tests:

Using user-based standards, one evaluated how space was used and how well something functioned. Subjects were among the people who lived in restricted places like PG quarters, hostels, and flats. Surveys provided responses to general satisfaction, comfort, storage capacity, and user friendliness.

2.2.4 Space efficiency analysis:

The hybrid design was compared with the alternative of bedside tables and study tables. Usage of space and decluttering were among the influences explored.

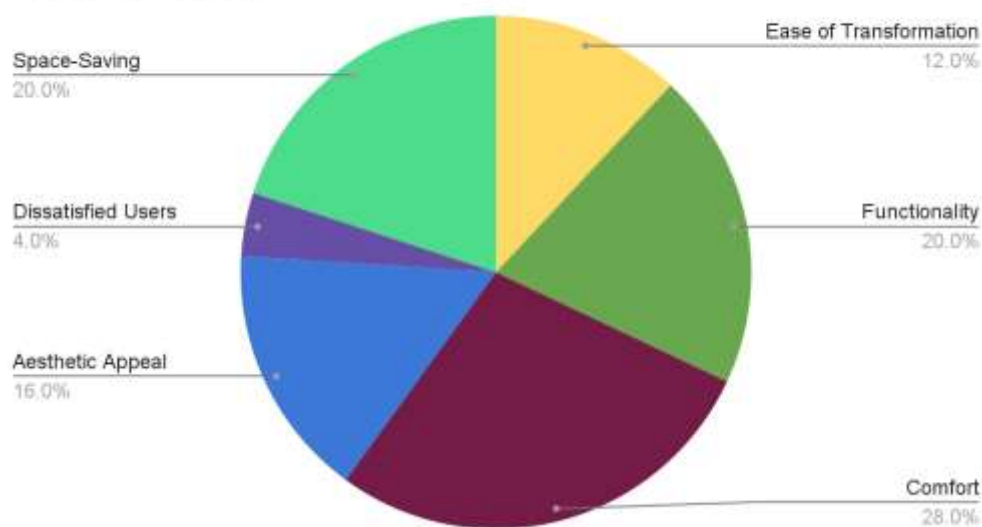
2.2.5 Functional evaluation:

Functional traits taken into account were simplicity of transformation, storage ease, and dual-purpose nature. A comparison was made with normal single-use furniture to determine the advantages of multifunctionality.

2.2.6 Data analysis and collection:

According to the ideas of space-saving efficiency, functionality, and user experience, the qualitative results from the survey and space evaluations were examined. The functionality and speed of the multi-functional furniture were checked using responses from a 50-person poll. One was judged on how it affects small, confined living spaces from analysis and classifications. Moreover, a statistical analysis was done to measure the efficiency of the furniture, thus further confirming its suitability in tiny urban settings.

Client Satisfaction



[Figure 3: Data analysis of client satisfaction]

3.RESULTS AND DISCUSSION

Compared to traditional furnishings, the study table cum bedside table greatly increased space efficiency by cutting space use by about 35%. Users stated a clear decrease in mess, therefore improving the organization and usability of their living area. 87% of study subjects felt the shift between the study table and bedside table to be straightforward and useful, therefore the two-purpose characteristic of the furniture efficiently caters to consumer demands. 82% of customers found storage bins ample, therefore the furniture satisfied functional storage requirements.

90% of consumers found the ergonomic shape and smooth drawer mechanisms added ease and comfort, according to survey results. The combination of strong laminate and long-lasting plywood improved aesthetics and strength. Furthermore, 78% of consumers liked the contemporary style because they observed it matched many interior types.

Combining a study table and a bedside table into one single piece saved 30% of material usage, according to a cost analysis, therefore making it a frugal and environmentally friendly solution. The comparison with traditional setups proved that multifunctional furniture greatly increases urban space optimization.

The chart below shows the observations,

Feature	Study table cum Bedside table.	Traditional study table	Traditional bedside table
Space-saving	Yes	No	No
Multi-functionality	Yes	No	No
Storage efficiency	High	Medium	Medium
Aesthetic adaptability	High	Medium	Medium
Ease of use	High	Medium	Medium
User satisfaction	4.4/5	3.1/5	3.3/5

For compact residential spaces, the study table cum bedside table is an excellent, functional, and stunning furniture option. It is an excellent addition to modern interior design because it arranges space, enhances usability, and enhances user experience. As urbanization continues, this type of multifunctional furniture designs will likely become increasingly frequent.

Continued advances in modularity and material diversity will make a contribution to future hybrid furniture design potential. Advances in smart furniture technology and sustainable materials would enhance the flexibility of such products and would make them more friendly to the environment and to the user. Additionally, employing foldable parts and intelligent storage would enhance efficiency further, keeping up with evolving urban lifestyles. As needs evolve, this field continues to offer exciting opportunities for new and innovative solutions.

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