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TRIPLEX TABLE

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ABSTRACT

A study table has become one of the necessities for users nowadays. This is because the user needs to facilitate and smooth the work process. The triplex table we built was born from the idea to minimize the limited space of a rental house and focus on student use. This multifunctional table can be stored neatly after use, it is equipped with a chair and includes a storage drawer for the use and comfort of the user. The size of this product is 780mm x 500mm x 500mm and it is made using chipboard material.

ABSTRAK

Meja belajar menjadi salah satu keperluan pengguna pada masa kini. Ini kerana pengguna perlu memudahkan dan melicinkan proses kerja. Meja triplex yang kami bina lahir daripada idea untuk meminimumkan ruang terhad rumah sewa dan memberi tumpuan kepada kegunaan pelajar. Meja pelbagai fungsi ini boleh disimpan dengan kemas selepas digunakan, ia dilengkapi dengan kerusi dan termasuk laci penyimpanan untuk kegunaan dan keselesaan pengguna. Saiz produk ini ialah 780mm x 500mm x 500mm dan ia dibuat menggunakan bahan chipboard.

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CHAPTER 1

INTRODUCTION

Nowadays, most of those who live in big cities live in houses such as flats, condominiums and apartments because of the high cost of living. A house like this certainly needs multi-functional furniture to minimize the use of limited space so that the available space can be used better. Therefore, high quality furniture can increase productivity and help people to prevent themselves from diseases and other potential health problems. Any table is a table but not every table is a table. (Desk, The Free Dictionary By Farlex)

The table is part of the furniture that has a flat table -style work surface used in schools, offices, homes or so on for academic, professional or domestic activities such as reading, writing or using equipment such as computers. It usually has one or more drawers. Tables are usually made of wood or metal, though sometimes materials like glass are seen.

Therefore, from the production of this Triplex Table it will be able to solve the problem by minimizing the use of space in the house and easy to move from one place to another. So, with the creation of this Triplex Table can solve user problems. The Triplex table is a multifunctional table that can be used for study or work.



Figure 1.1 The shapes of the table.

1.1 Problem statement

As we know, most of the tables on the market are not easy to move alone without help and sometimes require a lot of space. The size is also fixed and cannot be changed according to the conditions of a place. (2009, Wan Mohd Firdaus).

The existing table is difficult to enter the house or room through the door due to its wide size. This is because the size of the door in the house is a standard size. Standard Exterior Door Sizes in feet are 6 ft 8 In (Height), 3 ft 6 In (Width). Standard Interior Door Size in feet is 6 ft 8 In (Height), 3 ft (Width). (The Standard Door Size & Height Guide, Civiconcepts, Bhushan Mahajan)

The existing table is also not easy to move and does not save space and the storage provided is not enough to store items such as books, stationery and so on.

Therefore, from the production of this Triplex Table it will be able to solve the problem by minimizing the use of space and easy to move from one place to another. In addition, it also has enough storage space to store items such as books, laptops and others.

So, with the creation of this Triplex Table can solve the user's problem. Therefore, the Triplex Table is a multifunctional table that can be used for studying or working. With this drawer, users can store items such as items that are no longer used.

1.2 Signification of the study

The importance of this study is to see the table that is commonly available and sold in the local market. Therefore, this triplex table is easy to move because it has a wheel under the table. The purpose of this study is to show that this triplex table is a multi-functional table with many uses and is also a table designed to save space at home. In addition, this triplex table can make it easier for users to move the table position from one place to another.

1.3 Objectives

The objective of this study is to produce a Triplex Table.

1.4 Scope of the study

Nowadays, most houses are built in the form of apartments and flats because it opens up opportunities for users with medium and low incomes to own a house. This kind of concept house is the choice of students in big cities such as the house we chose as our field study which is located at Pangsapuri Jaya, Jalan Ilham U2/14, TTDI Jaya, Section U2, Shah Alam, Selangor. This house has an area of 850 square feet. The Triplex Table product we recommend is to help residents in this apartment to have a multi-functional study table in a limited space.



Figure 1.2 The space in the rooms in an apartment house.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

For generations, furniture has been made of wood. With the industrial revolution, furniture made from materials such as steel, aluminum, glass and plastic, began to appear. These materials may have revolutionized the furniture industry, but wood is undeniably still the top choice in furniture making. It is robust, reliable, flexible and easy to use, not to mention renewable and plentiful. Not only is wood permanent, but it is also timeless.

Nowadays engineered wood is also a choice in the furniture manufacturing industry. Engineered wood is a composite material formed by bonding sheets, particles, fibers or veneers, or thin wood boards together with adhesives to make a range of products such as plywood, fiberboard, block board and so on. Furniture made from engineered wood is affordable, easy to manufacture and durable.

2.2 Chipboard



Figure 2.1 Chipboard.

(Source : <https://ourplanetary.com>)

Chipboard is a type of thin cardboard that can be used to make various objects. It is usually made of particle board, which is made of many small wood particles glued together. There are many different advantages of chipboard. For example, it is a cost-effective, environmentally friendly product. Chipboard is very cheap to produce. This product is also environmentally friendly because it does not require a lot of fossil fuel to make it. This is an advantage as it helps produce less waste. Informal chipboard is simply chipboard that is not covered in layers of paper, plastic or anything else to enhance its appearance. (Our Planetary, Jeffery D. Silvers February 28, 2023)

2.3 Assembly

2.3.1 Furniture casters



Figure 2.2 Furniture casters.

(Source : <https://en.wikipedia.org/wiki/Caster>)

Casters are fixed wheels designed to be attached to the bottom of a larger object to allow the object to be moved. Casters are used in a variety of applications, including shopping carts, office chairs, toy carts, hospital beds and material handling equipment.

Like simpler rigid casters, swivel casters incorporate mounted wheels that rotate freely approximately 360°, thus allowing the wheels to roll in any direction. This able the table move in any direction easily without changing its orientation. A swivel castor is sometimes mounted on a handle so that the operator can set its orientation manually.

(Caster, Wikipedia)

2.3.2 Drawer slide



Figure 2.3 Drawer slide.

(Source :<https://www.firgelliauto.com>)

A drawer slide is a mechanism that allows telescopic movement in one axis. It is commonly found in various household or office applications such as desk drawers, kitchen cabinets and pull-out cutting boards but can be used in a variety of applications that require linear extension and retraction. Drawer slides typically work by allowing one groove component to slide over a rolling component, which allows the entire mechanism to extend or retract. Drawer slides are not motorized but can be coupled with linear actuators to provide greater stability. There are two main types: Roller Slides and Ball Bearing Slides. (Mark Li, Slides Drawer 101)

This type of slide offers a strong balance between convenience and control. Easier than unaided products, you can open and close the slide as you wish. There are several aspects to the system that balance the overall experience for you, the end user. Once the assisted opening slide is opened about halfway, there is a static zone where the drawer is relatively stationary and remains static. Beyond that, about 3/4 of the way open, the drawer assist mechanism ends the process. This makes for a seamless experience where you can get what you want with little effort. When closed, the drawer allows you to close it at will and only takes about 3/4 of the way through, past the static zone. (Drawer Slide Terms & Definitions, OVIS). We chose roller slides because their easy-to-control features are ideal for use in our products.

2.3.3 Screws



Figure 2.4 Screws.

(Source : <https://expertcivil.com/screw>)

Screws are a common type of fastener used to connect various materials. A screw is a basic device consisting of an inclined plane. It has been twisted and wrapped with ridges around the cylinder. The screw has a sharp tip. The screw tip is used to drill into stone, metal, wood and plastic.

Deck screws are the same as wood screws. Deck screws have a few other differences compared to wood screws. Deck screws are used to fasten battens to a composite deck or deck frame. On average, this type of screw can be drilled directly into the material. Corrosion resistance makes it more durable for outdoor use. Deck screw heads are also made for countersinking. This means they can either sit flush with the board or sink slightly into it. (Screw vs Nails for Furniture, Expert Civil)

2.3.4 Wood glue



Figure 2.5 Wood glue

(Source : <https://craftsmanship>)

Wood glue is one of the most important materials needed to carry out a woodworking or carpentry project. It is a form of adhesive to fasten or join two or more pieces of wood together. Whether it's furniture making, cabinetry or home remodeling, wood glue is one adhesive we use a lot during our projects. Although there are many other ways to join pieces of wood such as using nails and screws, the use of glue still produces the strongest and strongest bond if done correctly.

The strong chemical bond that is created is the result of the glue seeping into the wood fibers, thus creating an inseparable connection. In fact, the bond created is stronger than the wood itself, so any attempt to break the joint or separate pieces of wood usually results in the wood breaking instead of the joint. When carrying out our projects, not every connection or assembly process requires the use of glue. On the other hand, when building cabinets or furniture, it is very necessary to use them.

2.3.5 Stainless steel L



Figure 2.6 Stainless steel L

(Source : <https://my.misumi-ec.com/>)

L-shaped brackets are support brackets with holes so that the parts to be installed can be attached with bolts and nuts. Widely used in construction sites such as installation of air conditioning ducts and pipes using wall surfaces, electrical wiring, etc. The material consists of metals, such as stainless steel, aluminum, iron, etc. to resin, and can be used according to the environment. There are drilled holes, countersunk holes, tapped holes, and holes with tolerances.

There are various forms such as different surface treatment, plate thickness, number of holes, position of holes, etc., so it is necessary to choose one that suits the application. The advantage of the L-shaped bracket is that it does not require welding because the part to be fixed is screwed and installed. Also, depending on the securing method when attaching to the side plate, it can be used for both L-type and inverted L-type.

2.4 Design, size, and prices of table in the market.

2.4.1 Environment

In Malaysia, one or two-storey terrace houses, multi-storey flats (four or five storey), and high-rise flats (over ten storey) are the most common types of low-cost houses. (Nurizan, Ahmad Hariza, Laily & Bukryman). , 2004) This low-cost house has two bedrooms, a living room, a kitchen, a toilet, and a bathroom (Fourth Malaysia Plan, 1981). The size of the low-cost houses is set to a minimum, with two bedrooms and very little other space, even for a flat.

Therefore, for some who have many family members, they have to share a desk to do work. With the modest size of the house, the use of furniture used takes up a lot of space and is also quite limited. This situation is not comfortable to study and do work at the same time. In conclusion, for users who live in modest or small houses and have large families, they really need furniture that is easy to store, saves space and is multi-purpose in order to provide facilities for work, study and daily use.

2.5 Finishing

2.5.1 Plastic laminate



Figure 2.7 Plastic laminate.

(Source : <https://spyker.net/what-is-plastic-laminate>)

High-pressure plastic laminate (sometimes referred to as HPL) is a decorative sheet material used on vertical surfaces such as cabinet doors and horizontal surfaces such as counter tops. Although there is some overlap in solid colors and similarities in some details and wood patterns between manufacturers, they each have their own set of colors and patterns to suit almost any designer's taste or design concept.

Has wood grain patterns, especially tighter wood grains like maple or cherry, and reproductions of natural (stone) and industrial materials (concrete and steel) that are almost indistinguishable from the actual material represented.

A good example is the laminate shown in the picture above. As you can see the patterns and colors are very unique and suitable for an equally unique application. The designers stated that this Italian laminate has a specific design concept and ease of cleaning and durability parameters that really cannot be achieved with any other material as it is used in a commercial environment on bar faces. (What is plastic laminate, SPYKER)

2.5.2 Aluminium edge tape



Figure 2.8 Aluminium edge tape.

(Source: <https://aluminumsys.com>)

Among the many advantages of this innovative solution will give the table value and style. In addition to adding a stylish, clean and stylish look, our aluminum edging will provide durability and protect the table from everyday wear and tear. It is easy to install and fits almost any table size. Aluminum edge tape is available in 8 ft lengths. (Aluminum Systems NY by Cronos Design)

2.6 Standard height table and chair

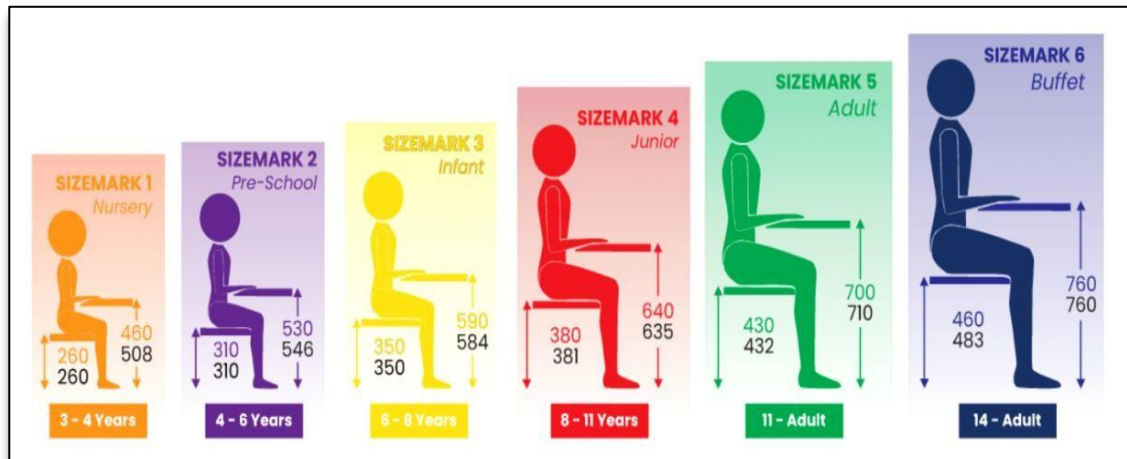
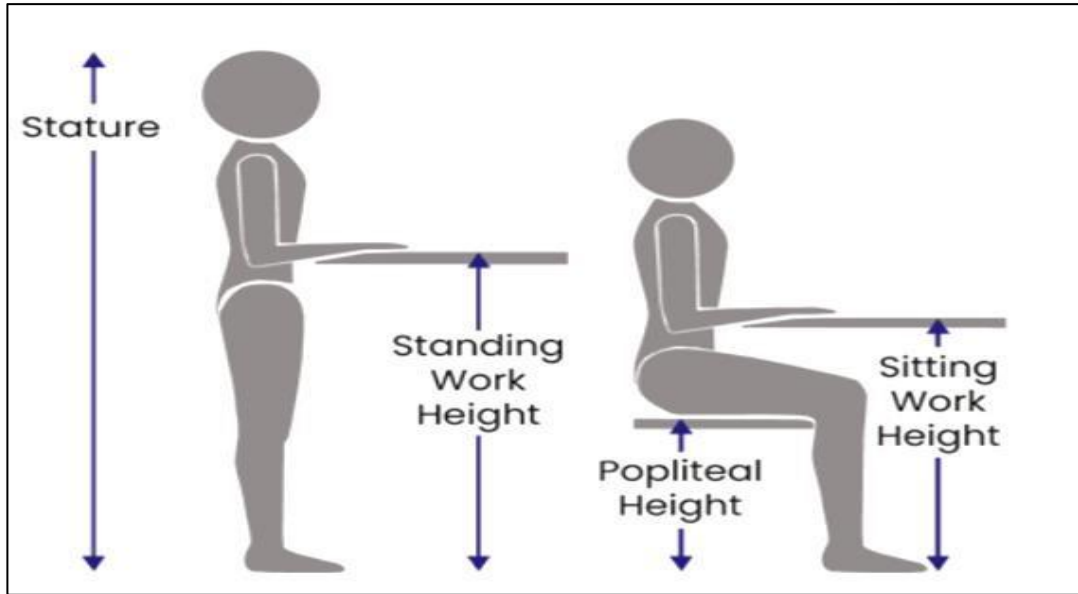


Figure 2.9 The correct seat height



COLOUR CODE	ORANGE	VIOLET	YELLOW	RED	GREEN	BLUE
SIZE MARK	1	2	3	4	5	6
AGE RANGE	3 - 4	4 - 6	6 - 8	8 - 11	11 - 14	14 - ADULT
POPLITEAL HEIGHT RANGE	250 - 280	280 - 315	315 - 355	355 - 405	405 - 435	435 - 485
STATURE RANGE	930 - 1150	1080 - 1210	1190 - 1420	1330 - 1590	1460 - 1765	1590 - 1880
STANDING TABLE HEIGHT	590	710	760	900	1000	1000
TABLE HEIGHT	460	530	590	640	710	760
CHAIR HEIGHT	260	310	350	380	430	460

Table 2.1 Examples of the correct seat height.

(Source: <https://www.gopak.co.uk/seating-guide>)

Correctly measure seat height by taking the measurement from the floor to the back of the knees when sitting, with thighs horizontal and lower legs vertical, with feet flat on the floor. Triplex table can not only meet the requirements of the appropriate size, but the shape and ergonomic design are considered to be able to maintain good posture and reduce repetitive strain injury and back pain for users. This ensures that the user is using a Triplex table that provides the correct seating posture. Based on the suitability of the dimensions used for school furniture.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

Methodology is a critical element of the research that should be addressed. This is due to the need to achieve the best possible outcomes in the production of the commodity. The aspects examined include analysis strategies, data collection methods, study procedures, and hypotheses to ensure that the methods used in this study are well studied in an orderly manner and hypotheses to complete the study.

3.1.1 Early research

Research is underway to solve the problem of students in rented houses. We found that the apartment house space especially in the room has limited space and is not suitable for placing large furniture. In addition, some items such as laptops, books, stationery and others are lying on the floor because students do not have a place to store their things in one place.

We also provide questionnaires to users who have such houses to find out the situation in their rental houses. Based on the questionnaire of 262 respondents, more than 90% agreed that a multi-functional table is needed in their home. Therefore, our project ensures that the limited space can be furnished with a multi-functional table. Our project will be implemented at Simple Idaman workshop.

Among the processes involved in producing this product are:

- i. Observation apartments
- ii. Design and distribution of questionnaires
- iii. Design planning and costing
- iv. Prepare budgets and costs

3.1.2 Flow chart process

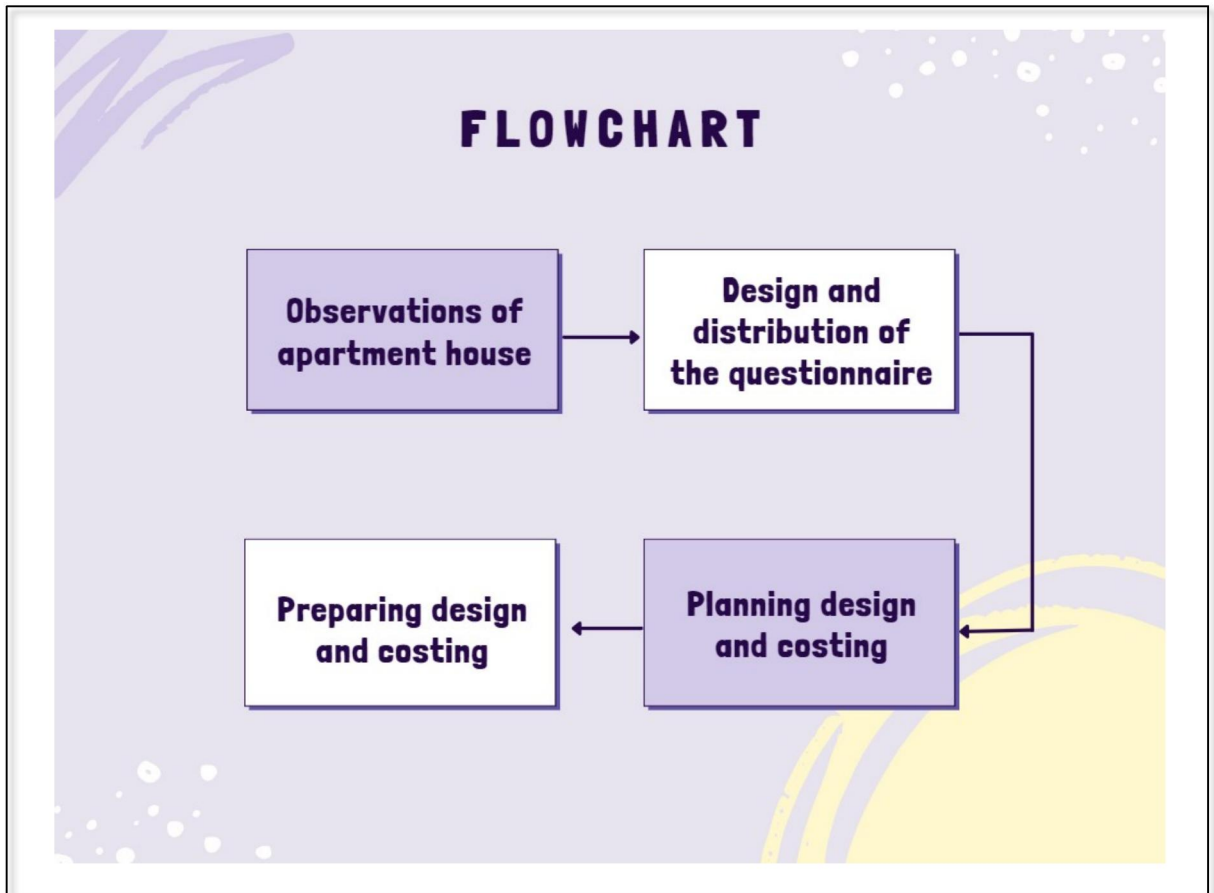


Figure 3.1 Flow chart process

3.2 Location

We run our project operations at Simple Idaman workshop. Since in the workshop we have all the necessary tools. Furthermore, the workshop was the father's workshop of one of our group members. Ultimately, this made it easier for us to complete our final year project work.

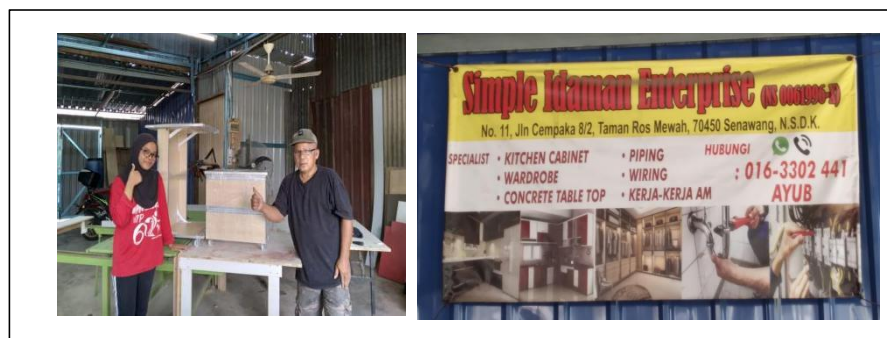


Figure 3.2 Simple Idaman workshop

3.3 Process involved

3.3.1 Observation of apartment

A site survey is an important first step process inspection to obtain information for a design or estimate to complete the basic tasks for an outdoor activity. It can figure out the ideal layout for where and where the obstacles are. Depending on the project, the type of site assessment and best practices required will vary.

The first step in our project is to survey modest apartments. We obtained some data that will help us for our research. We measure the bedroom and living room spaces and the size of the furniture in each space such as wardrobes, beds and sofas.

The room size is 9' x 12' and the living room is 15' x 18'.

3.3.2 Design and distribution of the questionnaire

A questionnaire is a research tool consisting of a series of questions used to collect data from respondents. The design and distribution of the questionnaire is the next step of the project. The questionnaire focused on the respondent's opinion about having a table in their respective homes.

3.4 Design

Our project design is a comfortable furniture size for users to use with ergonomic elements. The ergonomic shape can maintain the user's body posture well and reduce back pain. This Triplex table is also produced according to the height of the user's table and chair based on the suitability of the dimensions used for school furniture. Our project table size design can save space and it has a chair and drawers under the table.

3.4.1 Size

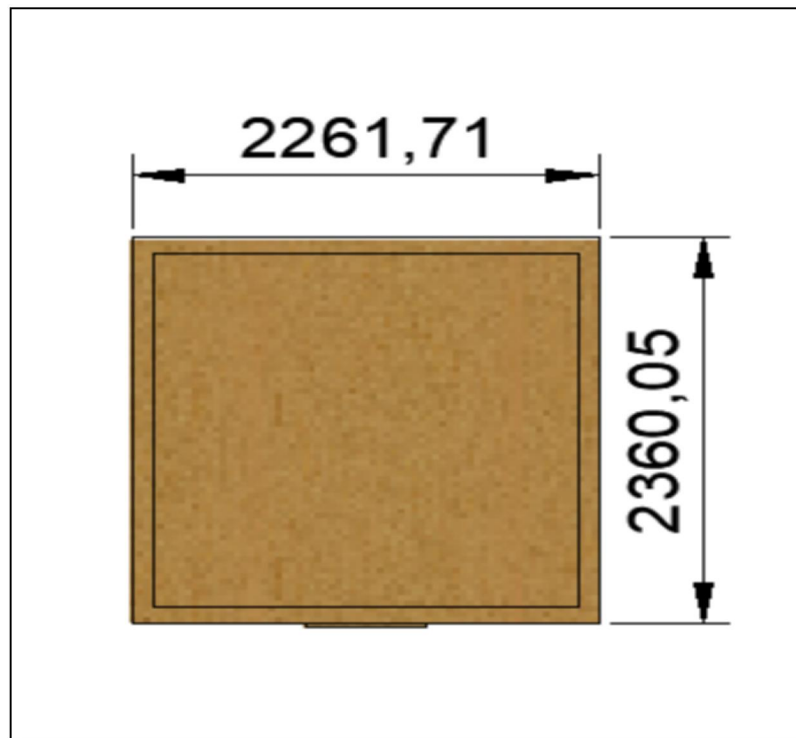


Figure 3.3 Triplex Table (Top view)

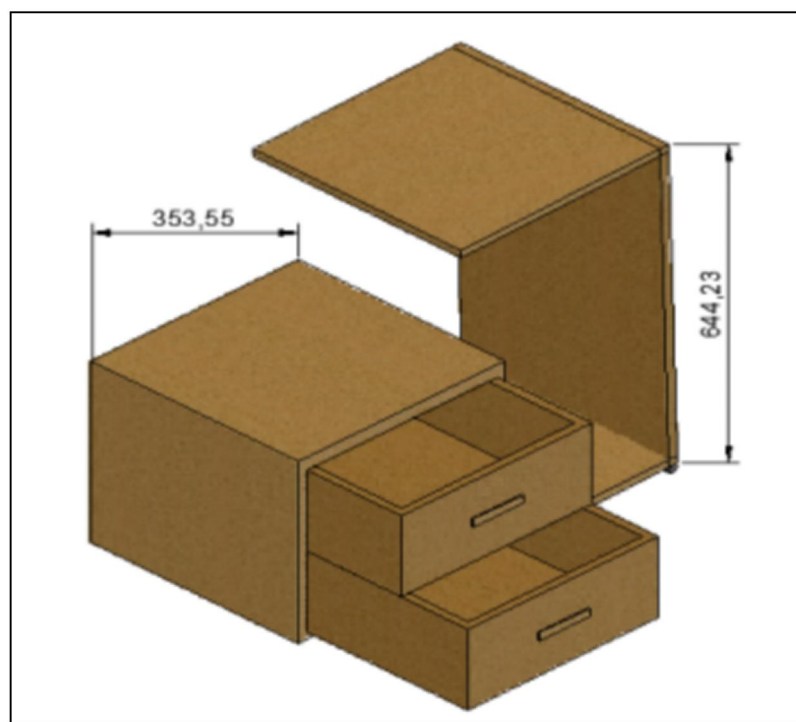


Figure 3.4 Triplex Table (Side view)

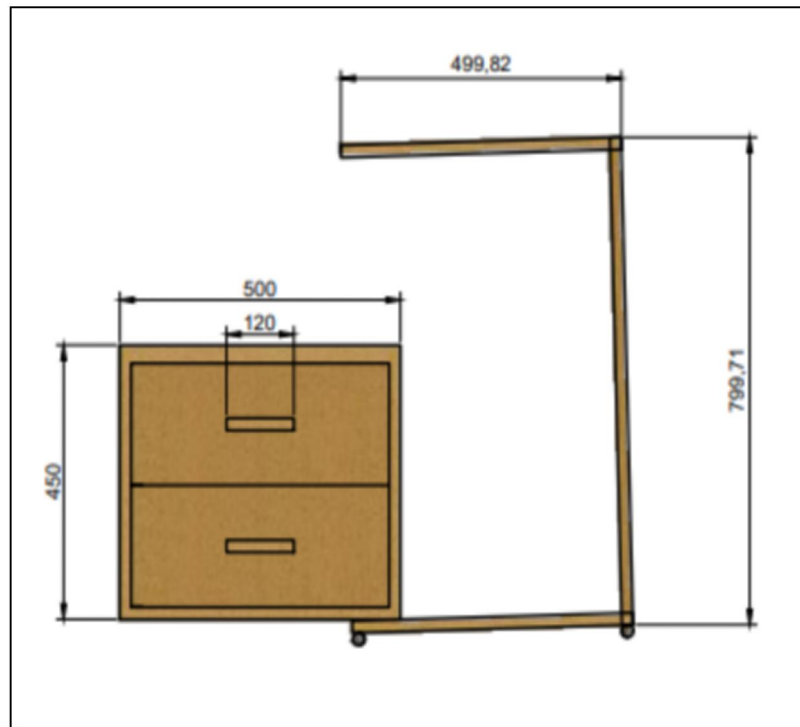










Figure 3.5 Triplex Table (Front view)

Dimensions are an important aspect of furniture design to provide user comfort. We must know the right size for the user, the size of our study table is 780mm x 500mm x 500mm, (length x height x width). We choose the 780mm long size because it is suitable for users of various sizes as well as to get a comfortable table height. We chose a width of 500mm because the objective of our project was to save space and easily move the table.

3.4.2 Bill of materials

Bill Sheet Of One No.			Bill Of Material				
Part No	Part Per Article	Part Name	Finish			Species	Molder
			Length	Width	Thickness		
A	1	Table Top	500mm	500mm	16mm	Chipboard	
B	1	Table Bottom	500mm	500mm	16mm	Chipboard	
C	1	Table Side Support	780mm	500mm	16mm	Chipboard	
D	2	Side Stool	460mm	500mm	16mm	Chipboard	
E	1	Top Stool	500mm	500mm	16mm	Chipboard	
F	1	Back Stool	500mm	460mm	16mm	Chipboard	
G	1	Bottom Stool	500mm	500mm	16mm	Chipboard	
H	4	Side Drawer	460mm	200mm	16mm	Chipboard	




I	2	Front Drawer	475mm	200mm	16mm	Chipboard	
J	2	Back Drawer	475mm	200mm	16mm	Chipboard	
K	2	Bottom Drawer	460mm	475mm	16mm	Chipboard	

Table 3.1 List of bill of materials

3.4.3 List of machine and tool






No.	Machine	Function	Picture
1.	Jigsaw	Cutting shapes and curves in wood	
2.	Table Saw	Cutting across (crosscut) and with (rip) the wood grain	
3.	Cordless Drill	Replacing screwdrivers	
4.	Compressor	To circulate the refrigerant in the system under pressure	
5.	Miter Saw	Make cuts at a variety of angles	

Table 3.2 List of machine and tool

3.4.4 Cutting list

Part Name	Length	Width	Thickness	Quantity	Material
Table Top	500mm	500mm	16mm	1	Chipboard
Table Bottom	500mm	500mm	16mm	1	Chipboard
Table Side Support	780mm	500mm	16mm	1	Chipboard
Side Stool	460mm	500mm	16mm	2	Chipboard
Top Stool	500mm	500mm	16mm	1	Chipboard
Back Stool	500mm	460mm	16mm	1	Chipboard
Bottom Stool	500mm	500mm	16mm	1	Chipboard
Side Drawer	460mm	200mm	16mm	4	Chipboard
Front Drawer	475mm	200mm	16mm	2	Chipboard
Back Drawer	475mm	200mm	16mm	2	Chipboard
Bottom Drawer	460mm	475mm	16mm	2	Chipboard

Table 3.3 Cutting list

3.4.5 Preparing budget and costing

No.	Item	Unit	Per / Unit	Total
1.	Chipboard	4''x 8''	RM 120.00	RM 120.00
2.	Screw	30 pcs	RM 0.50	RM 15.00
3.	Wheel with stopper	2 pcs	RM 4.50	RM 23.00
4.	Mild Steel Hollow	3''x 4pcs	RM 9.00	RM 36.00
5.	Drawer Roller	4 pcs	RM 4.00	RM 16.00
6.	Door Handle Drawer	2 pcs	RM 2.50	RM 5.00
7.	Sandpaper	4 pcs	RM 0.70	RM 2.80
8.	Aluminium Edge Banding	3 x 5 pcs	RM 6.00	RM 12.00
			TOTAL	RM 229.80

Table 3.4 Materials costing

No.	Item	Unit	Per / Unit	Total
1.	Material			
	Chipboard	4''x 8''	RM 120.00	RM 120.00
2.	Additional Material			
	Screw	30 pcs	RM 0.50	RM 15.00
	Wheel with stopper	2 pcs	RM 4.50	RM 23.00
	Mild Steel Hollow	3''x 4 pcs	RM 9.00	RM 36.00
	Drawer Roller	4 pcs	RM 4.00	RM 16.00
	Door Handle Drawer	2 pcs	RM 2.50	RM 5.00
	Sandpaper	4 pcs	RM 0.70	RM 2.80
	Aluminium Edge Banding	3 x 5 pcs	RM 6.00	RM 12.00
3.	Mark- up 70%	RM 70/100 x RM 229.80		RM 160.86
4.	Selling Price			RM 400.00

Table 3.5 Mark-up price

3.5 Working progress

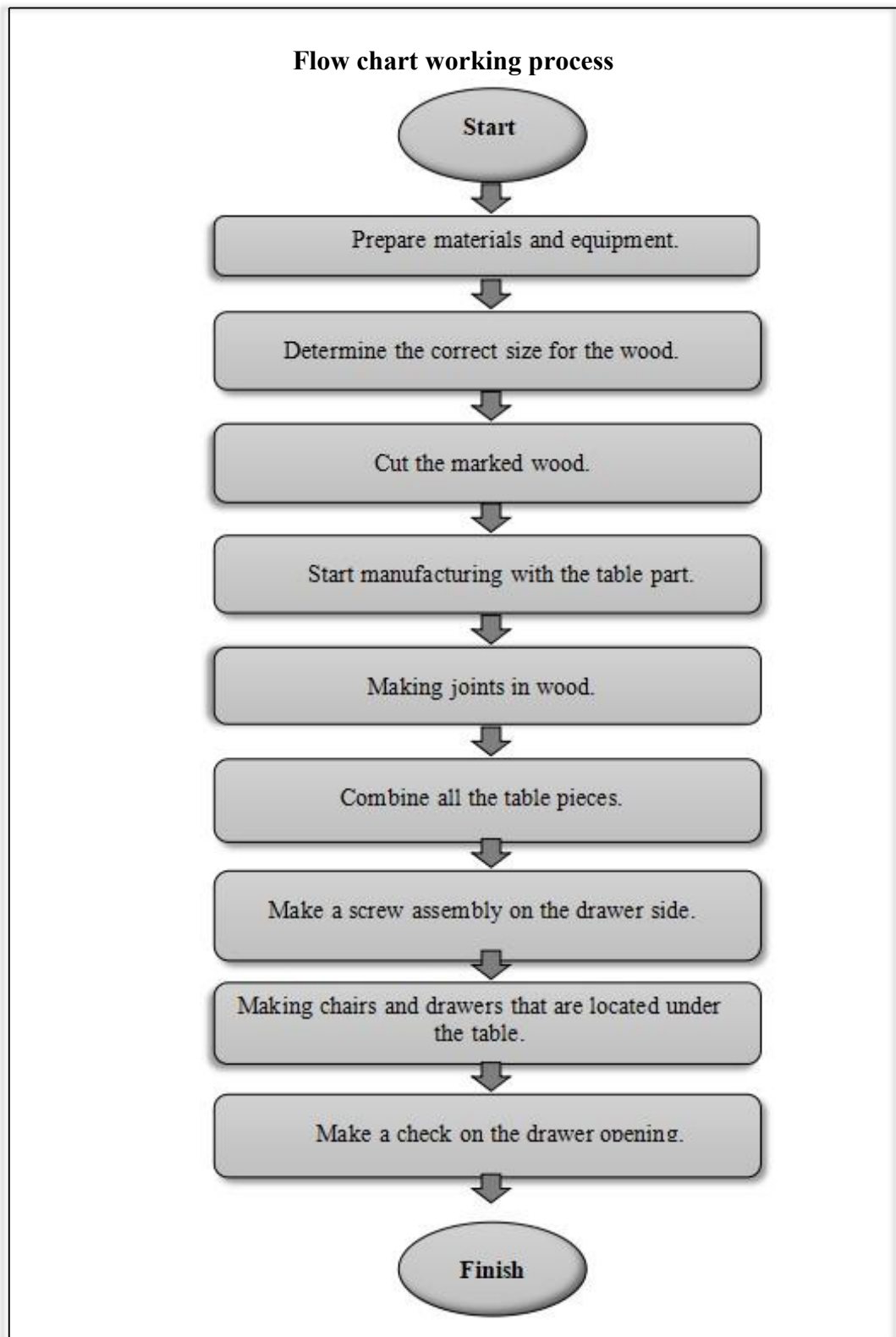


Figure 3.6 Flow chart working process

3.5.1 Cutting process

There are several parts that are required in the cutting process and must be cut accordingly cut list. Table Saw is a tool used in the process for cutting.



Figure 3.7 Cut the Chipboard by using Table Saw

3.5.2 Finishing

To make this product look good and attractive, there are several things required in the finishing process. This product on each side will be pasted with aluminum edge tape so that there is no damage to each side of the triplex table. Apply mineral turpentine to a soft cloth and wipe the entire triplex table by rubbing the surface little by little to remove any residue left behind. By using a chisel to scrape the corner of the aluminum edge tape so it doesn't look sharp and into a curved shape so it's safe to use.



Figure 3.8 Applied wood glue and aluminium edge tape



Figure 3.9 Applied mineral turpentine to to remove any residue left behind



Figure 3.10 A chisel is used to flatten the surface of the aluminum edge tape

CHAPTER 4

FINDING & DATA ANALYSIS

4.1 Introduction

Triplex Table has gone through many steps starting from the idea of a multi-functional, portable and space-saving table followed by product design sketches in software all the way to product production. Users will benefit from this product and will help in doing work as well as many functions for daily use.



Figures 4.1 View with close triplex table



Figures 4.2 View with open triplex table

4.2 Result and discussion of survey on completed Triplex Table

An online survey was conducted to get feedback from users on the complete Triplex Table. It was answered by 626 respondents.

4.3 Questionnaire Study

A feedback questionnaire for the Triplex Table has been done to show whether this table can achieve its objectives. This questionnaire has been well received by respondents and the results show that the Triplex table project has been successfully implemented. Most of the respondents who answered this questionnaire agreed with the function and design of this project and how to use it.

1	2	3	4
Sangat setuju	Setuju	Tidak setuju	Sangat tidak setuju

NO	STATEMENT				
		1	2	3	4
1	Meja ini dadpat menjimatkan ruang.				
2	Meja belajar ini mempunyai pelbagai fungsi seperti laci untuk menyimpan barang.				
3	Meja belajar ini boleh disimpan serta mudah untuk digunakan dan diubah kedudukannya.				
4	Meja ini mempunyai kedudukan laci yang strategik untuk menyimpan barang.				
5	Pada pandangan anda, adakah projek meja belajar ini dapat memudahkan pengguna dan menggunakannya?				
6	Adakah anda bersetuju dengan reka bentuk produk meja belajar ini secara menyeluruh?				
7	Adakah anda rasa meja belajar ini perlu ditambahbaikkan lagi? Jika ada sila cadangkan.				

Table 4.1 Example of feedback questionnaire about the Triplex Table

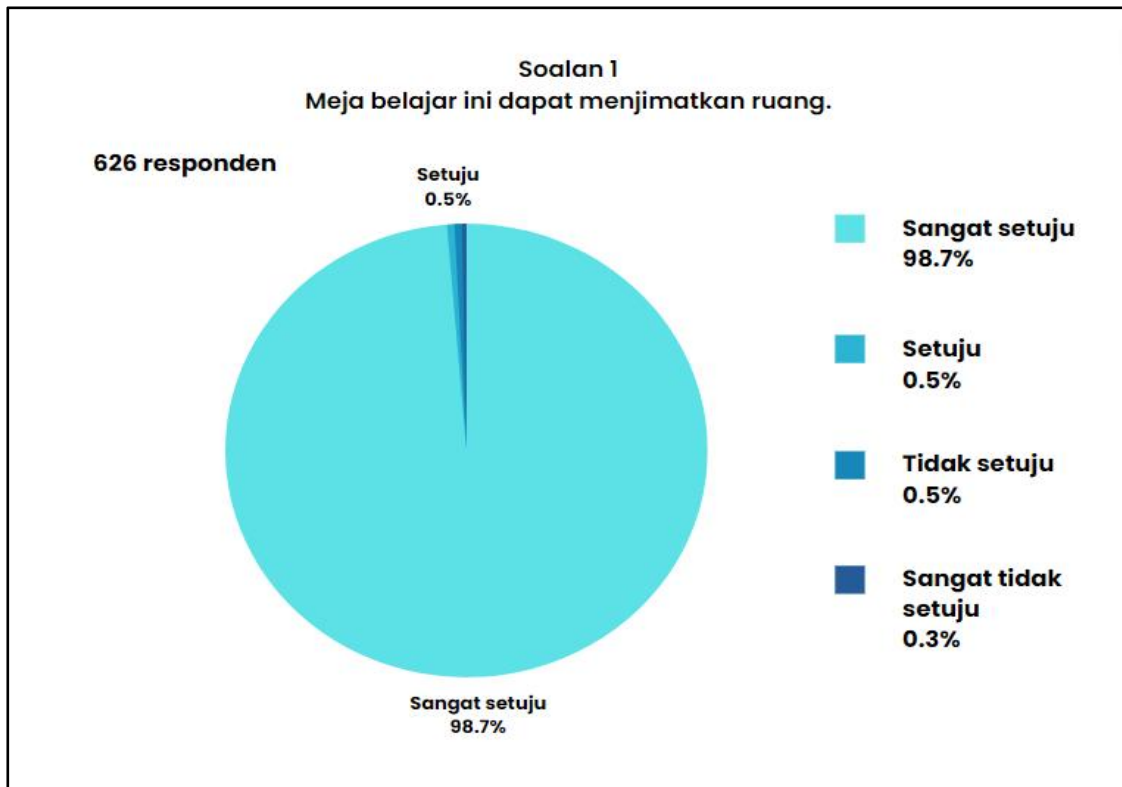


Diagram 4.1 Can save space

The diagram above shows the analysis of feedback from respondents about this study table can save space. From the analysis, 99.2% of respondents answered AGREE. Students can see how it is stored and use it. This study desk is designed to save space for student use.

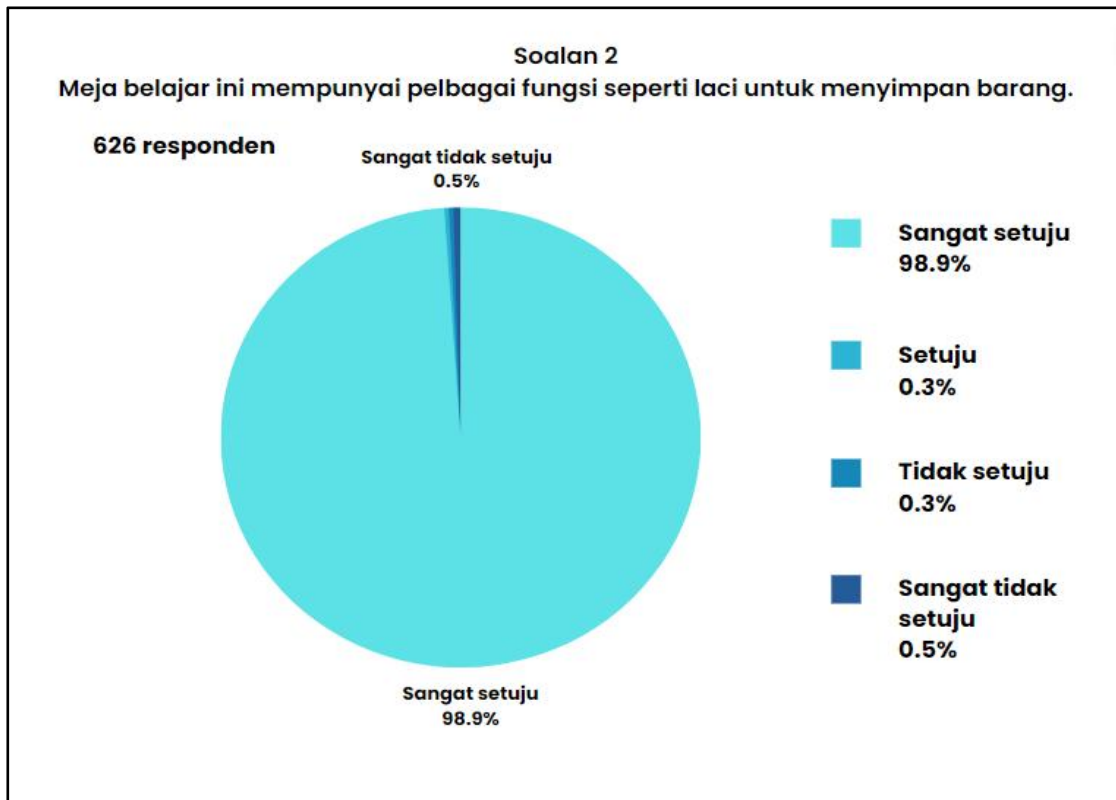


Diagram 4.2 Having various functions

The diagram above shows the analysis of feedback from respondents about this study table having various functions. From the analysis, 99.2% of respondents answered AGREE. Students agree because the functions on this study table can make it easier for students to use it. Like equipped with a table, chairs and have drawers to store things. While 0.8% of respondents answered DISAGREE. Some students do not agree because the function is not very prominent in their eyes and looks like a normal table on the market.

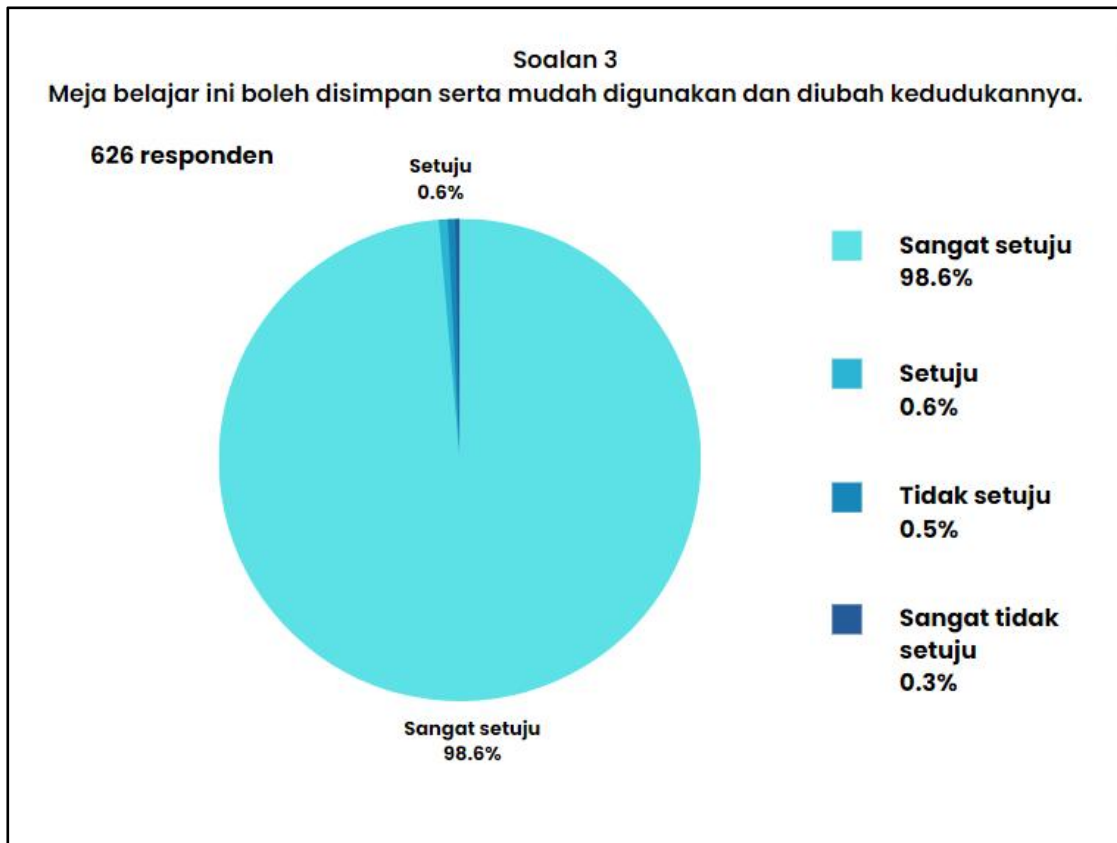


Diagram 4.3 Easy to store study table

The figure above shows the analysis of feedback from respondents about this study table that is easy to store. From the analysis, 99.2% of respondents answered AGREE. Most students agree that this study table is easy to store because it can be stacked on a chair for storage and it can also be used as a side table. While as many as 0.8% of respondents answered DISAGREE. A few students disagree because the storage method has to be lifted on a chair and looks heavy.

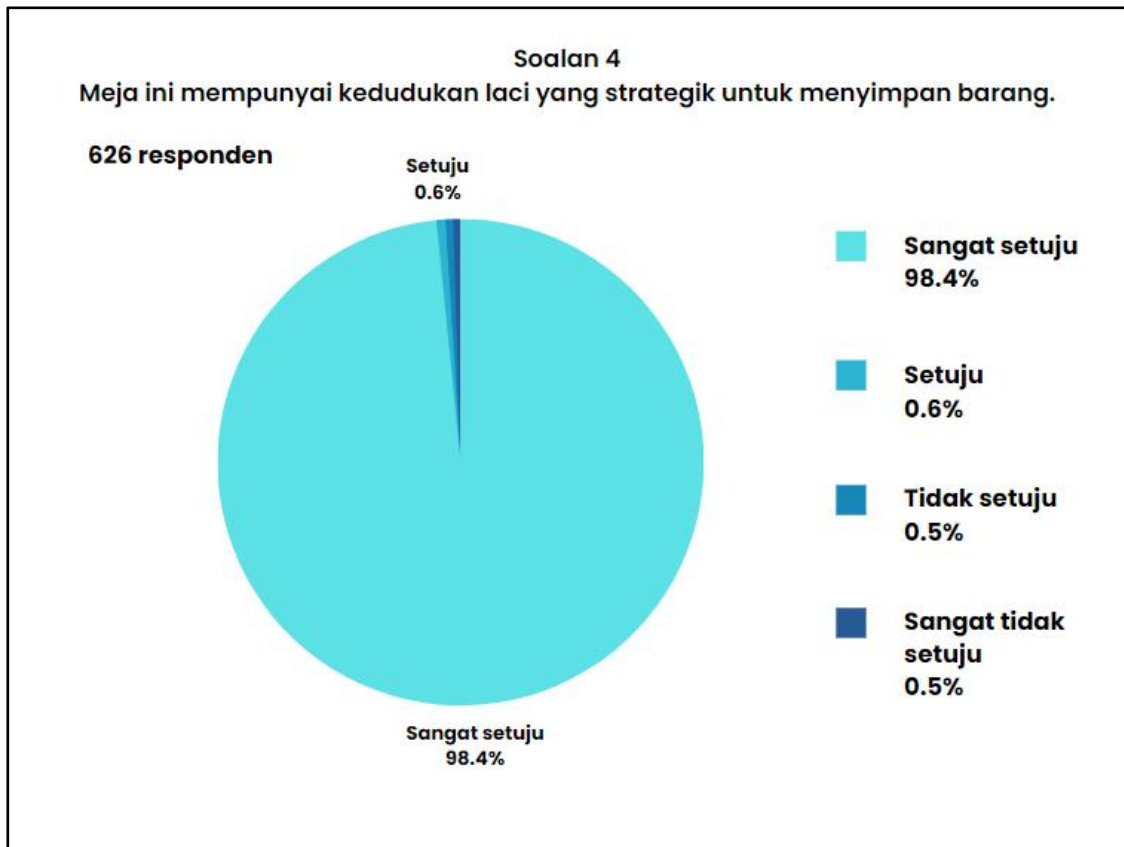


Diagram 4.4 Strategic position of the drawer

The diagram above shows the analysis of feedback from respondents whether this study table has a strategic drawer position. From the analysis, as many as 99% of respondents answered AGREE. Students agree that this desk has a strategic drawer position because it can protect things from being stolen. And also the table will look neat after use by storing things in the drawer. While 1% of respondents answered DISAGREE. This is because the students think that the drawer on the desk is not in a position that is difficult for the user to take and store items in the drawer.



Diagram 4.5 This study table makes it easier for users

The diagram above shows the analysis of feedback from respondents whether this study desk makes it easier for users. From the analysis, 99.4% of respondents answered AGREE. Students agree that this study table makes it easier for them because this table comes with a chair, which is sold separately on the market. In addition, this study table also has wheels that make it easier for users to change the position of the table. While 0.6% of respondents answered DISAGREE. Students who do not agree with this table make it easier because this table cannot be taken for travel and does not have a place to hold it or a strap.

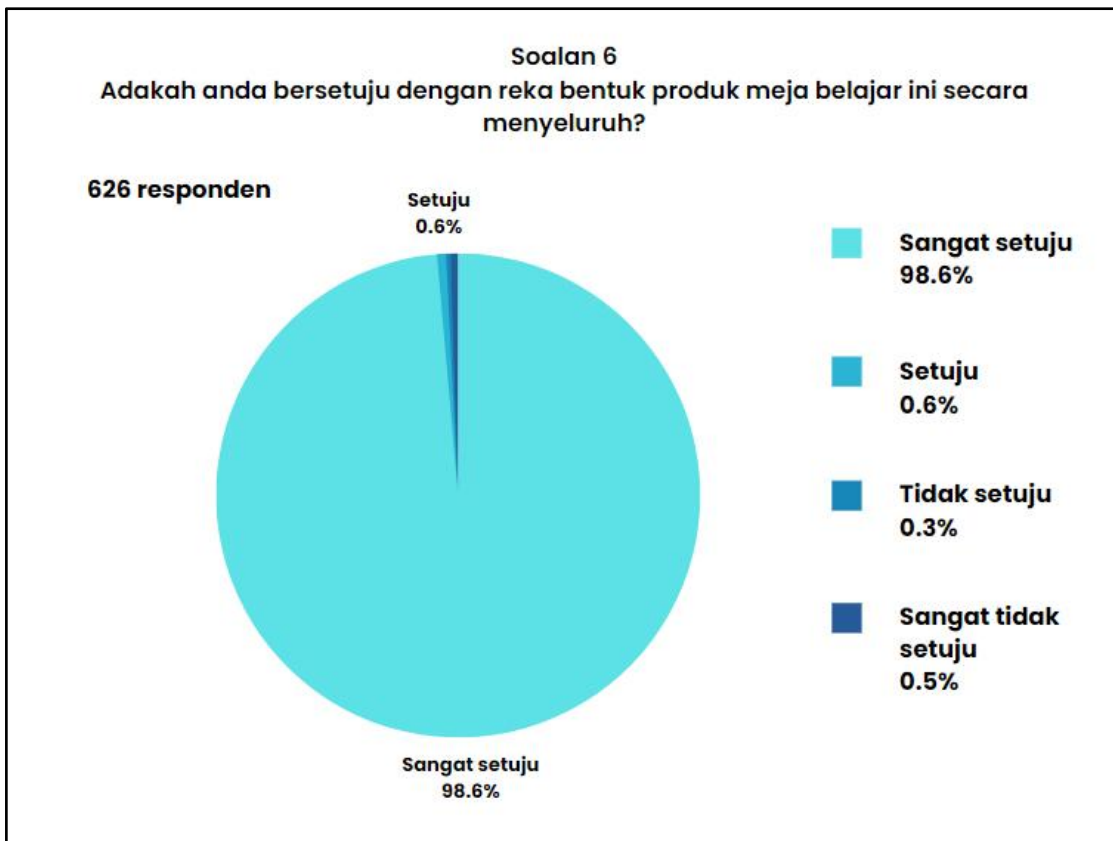


Diagram 4.6 Agree with the design of this product

The diagram above shows the response analysis of respondents whether you agree with the design of this product. From the analysis, 99.2% of respondents answered STRONGLY AGREE. Most of the students who answered this questionnaire liked this study desk design because it looks simple but has many functions on it. While 0.8% of respondents answered DISAGREE. A few students are less fond of this study table design because they are more into modern and aesthetic designs.

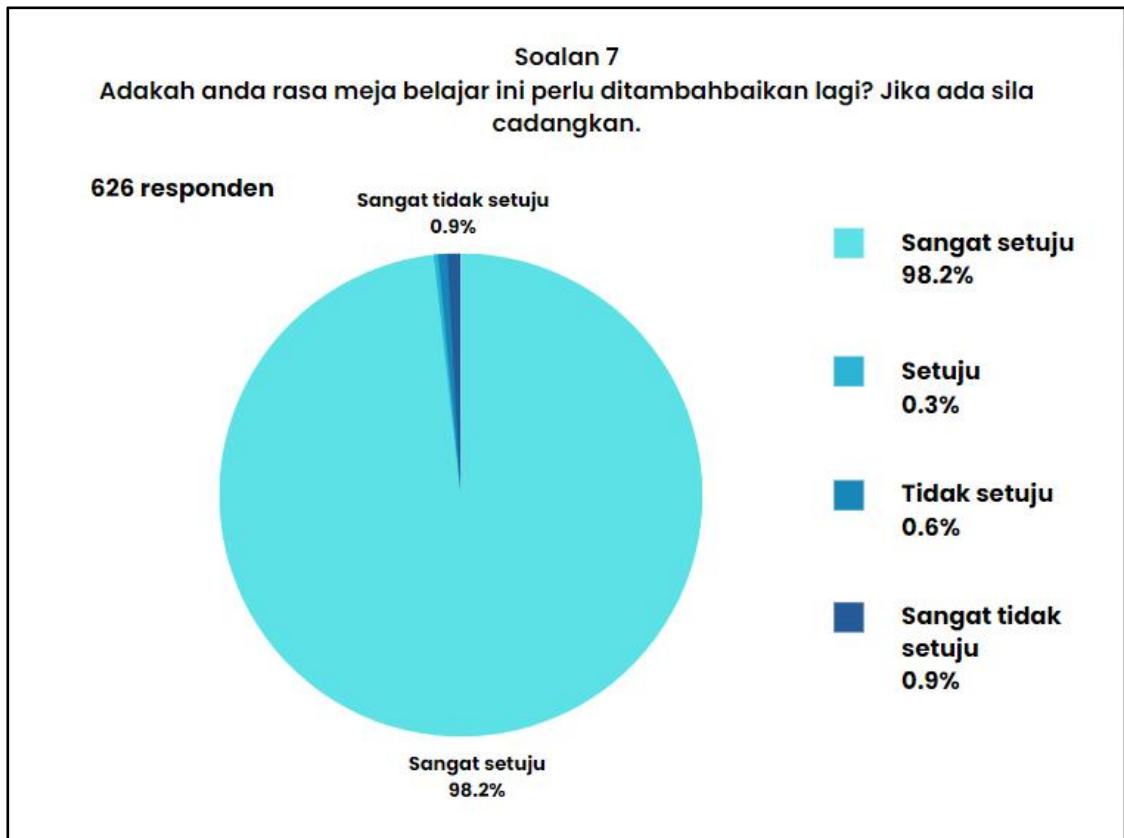


Diagram 4.7 This study table needs to be improved

The diagram above shows the analysis of respondents' feedback on whether this study table needs to be improved. From the analysis, 98.5% of respondents answered STRONGLY AGREE. This shows that students want to improve this study table according to their wishes because each student has their own problems. While 1.5% of respondents answered DISAGREE. Because students are comfortable with the existing design and functionality of this Triplex table.

4.4 Final result

The Triplex Table concept combines the concept of a table, chair and drawer into one product that makes it easier for users. This product is used in the office, home or otherwise for academic, professional or domestic tasks such as reading, writing, or using equipment such as computers. This triplex table is made of chipboard wood, which is a popular material for making tables.

CHAPTER 5

CONCLUSION & RECOMMENDATION

5.1 Introduction

This chapter covers the conclusion for the whole project. Conclusions for this project will be concluded and suggestions and future improvements that can be upgraded for future innovations to get better results for the system will also be discussed in this chapter.

5.2 Conclusion

In conclusion, Triplex table is getting more and more popular in the market because they want a good return on the goods purchased. As discussed in the previous chapter, respondents are interested in this product because of the various functions found on the Triplex table itself.

Its ergonomic design and size are suitable for all ages, especially students who live in apartments or houses with small living rooms or bedrooms. This is because, this study table saves space for users to do work, also has a chair to sit and a drawer as a place to store things. Finally, all the objectives of this project were successfully achieved.

5.3 Recommendation

For future recommendations, improvements can be made to improve the features of this product. One of the improvements is the option to use materials other than chipboard can also be considered. Also, to make this table more attractive by making improvements to the table so that the way it is used is more sophisticated and high-tech. In addition, the size of the wheels on the table and chairs can be considered for further innovation. This is because to allow the wheels to be stronger to accommodate the table and chairs for a longer time and high quality.

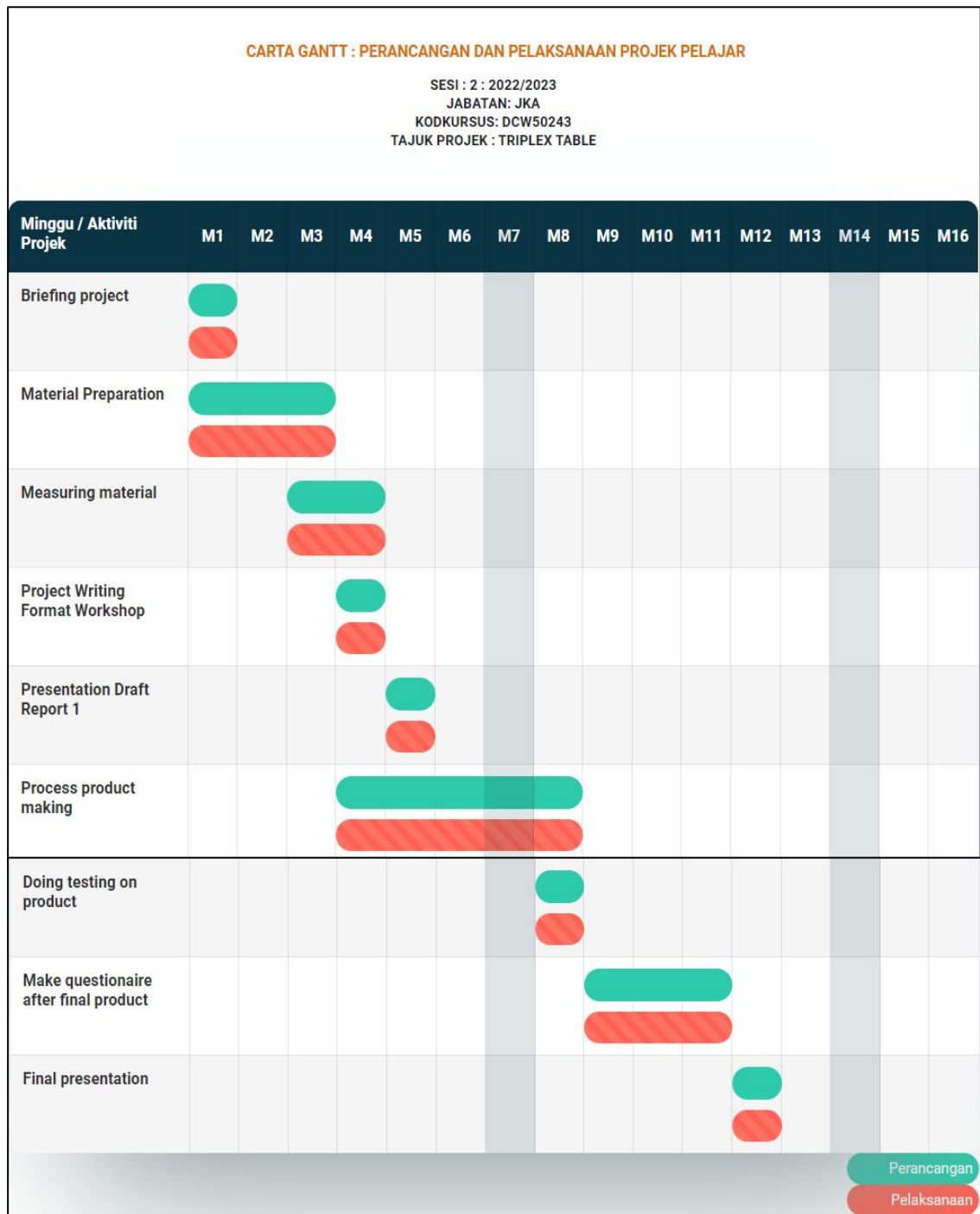
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APPENDIX

GANTT CHART



APPENDIX

TINJAUAN TENTANG MAKLUM BALAS MENGHASILKAN INOVASI MENGUNAKAN TRIPLEX TABLE

Assalamualaikum dan salam sejahtera. Kumpulan kami sedang membuat kajian (FYP) berkaitan penggunaan meja belajar di pangsapuri. Terima kasih atas kerjasama yang anda berikan.

TINJAUAN TENTANG MAKLUM BALAS MENGHASILKAN INOVASI MENGUNAKAN TRIPLEX TABLE

BAHAGIAN A

Jantina

- Lelaki
- Perempuan

Jabatan

- JPG
- JKM
- JKA
- JKE

Semester

- 1
- 2
- 3
- 4
- 5

TINJAUAN TENTANG MAKLUM BALAS MENGHASILKAN INOVASI MENGUNAKAN TRIPLEX TABLE

BAHAGIAN B

Dapatan kajian ini akan digunakan untuk meningkatkan kualiti TRIPLEX TABLE yang boleh digunakan sebagai meja belajar dan pelbagai fungsi di bilik tidur di sebuah pangsapuri.

Pilih jawapan :

1. Sangat setuju
2. Setuju
3. Tidak setuju
4. Sangat tidak setuju

Gambar Triplex table











SOALAN 1

Meja belajar ini dapat menjimatkan ruang.

- 1
- 2
- 3
- 4

SOALAN 2

Meja belajar ini mempunyai pelbagai fungsi seperti laci untuk menyimpan barang.

- 1
- 2
- 3
- 4

SOALAN 3

Meja belajar ini boleh disimpan serta mudah digunakan dan diubah kedudukannya.

- 1
- 2
- 3
- 4

SOALAN 4

Meja ini mempunyai kedudukan laci yang strategik untuk menyimpan barang.

- 1
- 2
- 3
- 4

SOALAN 5

Pada pandangan anda, adakah produk meja belajar ini dapat memudahkan pengguna untuk menggunakannya?

- 1
- 2
- 3
- 4

SOALAN 6

Adakah anda bersetuju dengan reka bentuk produk meja belajar ini secara menyeluruh?

- 1
- 2
- 3
- 4

SOALAN 7

Adakah anda rasa meja belajar ini perlu ditambahbaik lagi? Jika ada sila cadangkan.

1

2

3

4

Other: _____