

21st Century School Student's Desk

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Abstract: A desk is an important thing that every school should have to facilitate learning sessions. However, some disadvantages of existing products can affect students; the desk has a small writing space. Also, the desk height is not suitable for all student's measurements must carry a lot of books, and, lastly, tables are difficult to move to form groups. Therefore, we decided to build a table like the 21st century to solve this problem. A little initial introduction regarding the 21st-century school student's desk is in terms of the design of the desk to be built. The chosen method is rectangular. The size of the table is approximately 40 inches, which is equivalent to 3 table feet. The central concept to highlight is that this table is divided into two doors that can be opened and closed. These two doors measure 9 inches. This door is built to comfort students, and this table will be wide when opened. Therefore, this desk becomes large, making it easier for students to do work such as writing notes, recording information, etc. Apart from that, another uniqueness of our table is that this table has a screen on the surface of the table. The material used is the transparent acrylic board. In addition, the estimated size of this screen is 18 inches. One of the uses of this screen is to make it easier for students to learn without using textbooks but instead using an iPad or tablet placed at the bottom of the screen. With this also, students can lighten their school bags from carrying many books. In addition, we installed a lock handle at the bottom of the screen, where the iPad is placed for security purposes. This mango is installed to maintain the security of the iPad and prevent theft. Next, another uniqueness of this table is that there are wheels under the legs, which can be adjusted in height. This wheel is installed to make it easier for students to work in groups by practicing the concept of moving tables in groups as it happens in the 21st century. With that, more room to form a group without affecting the next room, and the planned discussion will be of better quality. Finally, this table has a hanger to hang bags. With this, the bag looks neater and not cluttered all over the place. That's all; it is a little introduction to the table that wants to be built.

Keywords: school; table; screen.



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1. INTRODUCTION

The primary purpose of this table is to make it easier for students to learn without using textbooks. In addition, this table can also help students to remain enthusiastic and not quickly feel lethargic when studying. Next, this desk makes it easier for students to lighten their bags because they don't need to carry many books. This table can also be moved to make it easier for students if they want

to do group work. Thus, it has more space to form groups without affecting the area in the classroom. Finally, this table has a cover that can be opened and closed. This table cover is built to keep the table screen safe, so it is not easily scratched.

2. METHOD & MATERIAL

The material used to build this table has been modified due to several factors. Therefore, the materials used are wooden boards, cardboard, acrylic screen, table frame, pipe rod, table elbow, wheels, bookshelf holder stand, and cylinder Tumblr cup. Quality assembly methods were used to build this table. In the first step, we cut a standard size wooden board into a 40-inch board for the front of the table. This process is repeated when we cut the next wooden board used as a table cover. Next, we install the elbow under the table face so that the table face can be combined with the table leg frame. In addition, we installed wheels at the end of the table leg frame. The wheels are installed to make it easier to move the table. Once completed, we combine the elbow with the rim of the table leg. Next, we cut the pipe into a socket size of 15 mm (1/2") and stuck the socket on the surface of the table. Next, we installed a wooden board on the surface of the table. This board is used as a table cover that protects the table screen so that it is not easily scratched. Lastly, we installed the bookshelf holder stand and cylinder Tumblr cup on the side of the table as the final addition.

3. FINDINGS

In this finding, we would like to study this table more carefully in terms of table strength, table design, table usability, and table suitability for all users. Therefore, to complement this study, we interviewed five students consisting of 3 male students and two female students. These five students are from the age of 17. In this interview session, students were asked to use this table and answer some questions aimed at knowing the pros and cons of this table if used by students. 6 questions were asked, and the first one explained whether the table was solid. The second one, If you were given a choice, would you choose this table? Then third, clarify whether the storage space on the side of the table is strong enough to store heavy items. The fourth one, in your opinion, is the height of the table appropriate for all users. Fifth, give your idea on the usability of this table in terms of strength, and the last question, explain if you are interested in the design of this table.

3.1 Findings 1

Stated the fifth answer of five students based on the question asked. The first question explains whether the table is solid or not. Four said it is stable enough for students to do their work; the other said it is not challenging enough and needs a few stability improvements. Next is the second question, If you were given a choice, would you choose this table? All of them would choose this table. The first one said it's an excellent table for the next generation. The second one said it is very innovative for this time right now. The last one said it's convenient for students to study on it and it has all the necessities for students to put their stuff and books. Third, explain whether the storage space on the side of the table is strong enough to store heavy items. Both of the interviewees said it is strong enough. The next interviewee said it needs metal or steel material to make it more stable and robust enough. Then, the other said it doesn't have enough storage for some STEM students, but since the textbook can be viewed from the iPad, it can be considered. From the opinion of the last interviewee, this table is a prototype, and it's not the real thing, so it's not sturdy enough.

3.2.2 Findings 2

Next, the fourth question is, In your opinion, is the height of the table appropriate for all users? Both of the interviewees said it is appropriate for all students. The other two said it is very suitable and perfect for small and short students, but since it can be adjusted, it may be considered for taller people. And the last one said this table still needs to increase its height. Then the fifth question, give your

opinion on the usability of this table in terms of strength. All of the interviewees said it is strong enough. The first one said it is strong enough to be used by all students. It's suitable for the next generation to learn while using this technology, and it's probably will help the students not carry a heavy bag to go to school. The second one said it's sturdy enough to put some books in the storage space and it's perfect if you want to study here. Then, the third one said it is solid and suitable for students because it has so many compartments and things you can do with this table. And the last opinion from the previous person is that this table has a room and can put a lot of books, maybe five books, in the storage space and stationery. It's sturdy enough to hold up all of those things, and the last question, explain if you are interested in the design of this table. All of them are interested in this table's design. The first one said the plan is excellent, so it's helpful for you to use it, and it's good for everyone to use it for a long time term. The second one said it is a good innovation that needs to be carried out by the ministry because the table is multifunctional. The last one said the table is unique since there's a fan and some storage spaces to put your books and stationeries.

4. DISCUSSION

The results of the research we have done through this interview session have provided an overview of the advantages and disadvantages of the table from various aspects, such as strength, stability, design, and the way this table is presented. Therefore, users have expressed positive and negative comments regarding this table. Based on the answers of users who have been interviewed, we conclude that this table is marketable. However, the user's responses from this interview session also allow us to improve this table before it is marketed.



Figure 1. The table.

5. CONCLUSION

The conclusion that can be made is that this desk can be marketed and can attract the interest of students to remain enthusiastic because it makes it easier for students in terms of not having to carry a lot of books, where it can be applied effectively through the ease of using the iPad. This matter is very suitable with the age of technology that is progressing from time to time. In addition, this desk is lighter than existing desks found in schools. Therefore, we can practice the concept of a moving table as it happens in the 21st century. That is, the table is moved to form a group. Furthermore, this table has strong stability regarding table surface area and leg length. Finally, this desk helps students to stay motivated and not easily bored during learning sessions.