

THE MULTIFUNCTIONAL DESK AND ARMCHAIR IN A LECTURE ROOM

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Abstract: *this paper deals with more suitable design for a convenient desk and armchair which are friendly used in the classroom during the lecture. As today computers are required for students, it is nature for desks to involve computers. In this paper it is the purpose of research to solve the problems how to pay attention to the lecture and avoid the boringness. And it is also to contribute to the fresh eyes and a harmonious body. By using the design program-3ds MAX 2017 the desk with a computer and armchair had been designed.*

Keywords: *multifunctional furniture, Desk, Armchair, Disturbance, Rotatable panel.*

1. The research on designing desks and armchairs in a lecture room

Many of the designers tried to design the desks and armchairs for students and they had their own characteristics [1]. In most cases they focused their attention on a subject to solve the comfortable problem and multi functions. Anyhow, all the designers want to do this and me too. But they were more interested in the personal desks and armchairs in the house than the common desks and armchairs for students in the classroom. Generally students stay in the classroom for a longer time than in the house. For example, 4~5 hours' lecture, practice time, self-study afterschool. And due to the hard desk and armchair they often feel boring physically. In the other hand there were many designs for desks and armchairs such as the union sets of a desk and an armchair which were used in the lecture hall in specially. But these designs have a little lack in the multifunctional function. For example an angle of the rotatable panel of a desk was too small as 0~25° [2, 3]. It is not suitable to read the books, and make the student's neck tired. In addition to that they didn't consider the disturbance by the other's noise to the student who pays attention to the lecture or is studying hard after school. It is the mission of a desk and an armchair in the school or college not only to supply the convenience to the students, but also to get a lot of knowledge from the lecture. So naturally the designers should consider the disturbance. This paper combined with the things just mentioned above.

2. The design of the desk

This desk has a gradient cover with the shape of book which is symbol of science and is convenient to students when they are only reading or testing (**Figure 1**).



Fig. 1. Closed desk for test and studying after school

- If they had opened the cover and made it stand still, this will help him or her to prevent from noise or disturbance that might badly affect to the attention (**Figure 2**).

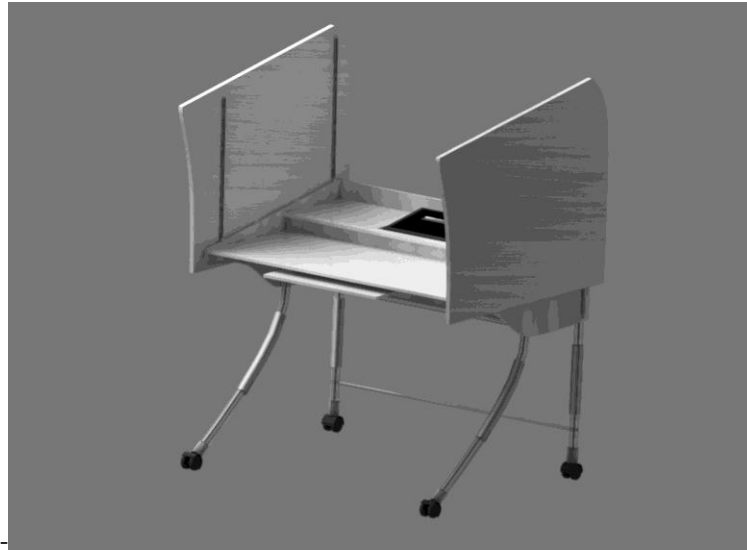


Fig. 2. Opened desk for paying attention

And if they want discuss with each other, they might make the cover fall down. As a desk for the student it should include the computer to supply a lot of data to students. And this computer might be rotated with a convenient angle according to their opinion. Below the computer, the mouse and receiver can be stored (**Figure 3**).

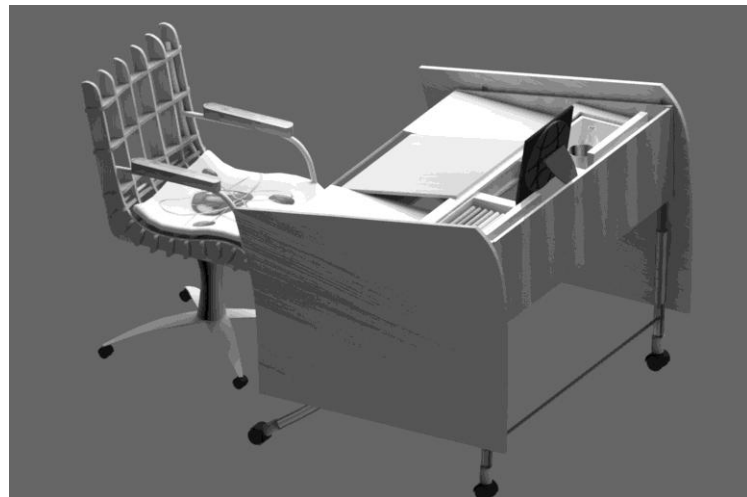


Fig. 3. Desk for lecture

This desk also can supply the space with the cover set to store the books, textbooks or references and the special space to lay a cup and a bottle for milk or coffee in order to avoid the falling over or breaking off. The dimension of the design is suitable to the child and student [4] (**Figure 4**).

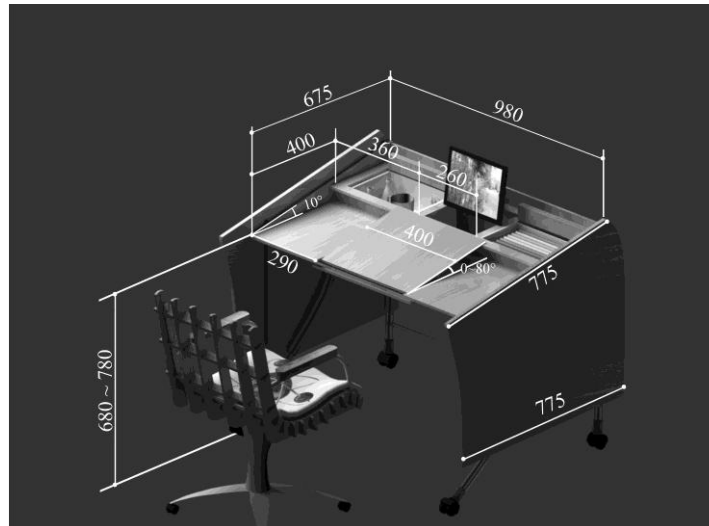


Fig. 4. Dimension of the desk

- It also has a rotatable panel with 0~80°angle range for reading and writing. Below the rotatable panel there is a shelf for keyboard. And the height can be changeable according to the age.

3. The design of an armchair

This armchair is also the multifunctional one. It was made of the waste panels produced during manufacturing the desk. (Figure 5).

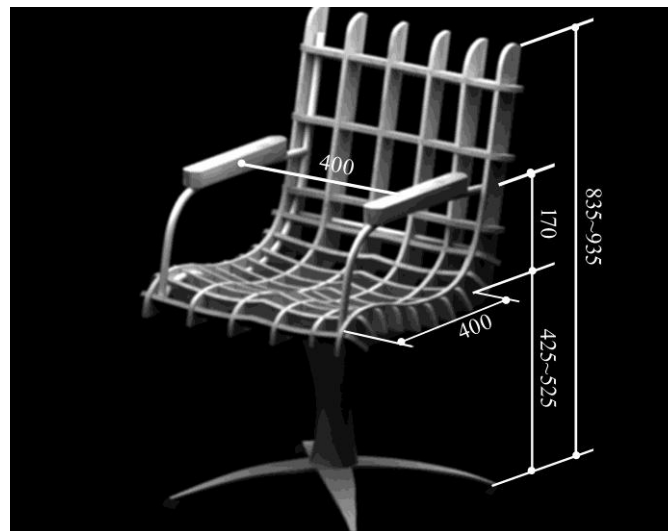


Fig. 5. Dimension of armchair

- It has a shape of the hips to release the stress by increasing the seat surface and can rotate backward.
 - In addition to this, it may involve with the air cushion made from ethylene plastic cells and cloth. Then the air cushion will have the elasticity, release the stress and make the student comfort.

It also has the net surface for seat, and makes the hip fresh when they are staying for a long time in the seat, which makes the air cushion not slide. And if he or she doesn't want use this cushion, it is not necessary. In the case that they use the removable air cushion they always might keep the seat clean (Figure 6).



Fig. 6. Angle of rotation

- The height of the seat can be adjusted, too. And it is movable and rotatable leftward and rightward. Several kinds of cushions which he or she likes for soft and comfortable seat might be used to keep the body warm in winter.

4. Conclusion

This paper deals with the problem to enhance convenience and function for students. Of course the shape or the art might be poor but this might be contributed to the students and future scientists with strong and harmonious bodies to get lots of knowledge. In future the design for desks and armchairs for students will be developed more and more.

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