

NATIONAL DESIGN PROJECT

*An initiative of the
Design Education Advisory Committee*

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Brief Introduction of Design

What we are doing	Chairnet
Description of design	<p>This prototype consists of a chair and cabinet. The cabinet is made up of a track holder and a bifold curtain. The bifold curtain is pulled along the track holder to create the space for the bag to be placed.</p> <p>There is a hook located at the front of the chair to hold the bifold curtain up, keeping the bag underneath the chair.</p>

Introduction to Our Design Prototype

Our prototype is to firstly, improve the workplace wellness in school, secondly, work-life harmony and also the environment for students to study. We created a prototype that allows you to keep your bags under the seats. We have done our research about the details of workplace wellness through articles and collecting data by asking students to do a survey about their opinions about workplace wellness.

Meet Jake

Goals

- Maximise learning by making them stress free
- Not to dirty their bags
- To provide convenience to students to keep their bags under their chair

Needs

- Provide space for students to put their bags and take them out conveniently
- Provide a conducive environment for students with more space to walk in
- They have more space to walk to and from their tables
- They need to have a place to put their bags on



"Why is my classroom so messy?"

Meet Jake



Problems

- Bags being on the floor, untidy the classroom
- Putting bags on the floor gives students a confined classroom space
- Students have difficulty walking between the aisles in between to go to and from their chairs due to bags scattered on the floor
- Students must bend to take out their bags and they have no place except their floors to put their bag

1. Research Details

The Statistics from Students

More than 45% of students said that a messy classroom affects their focus and learning, leading to poor academic performance. They wanted to place their bags away from the ground, such as moving them below their chairs. The participants were also asked for their suggestions on how to improve the prototype (on Slide 17). These suggestions were taken into account while designing the prototype.

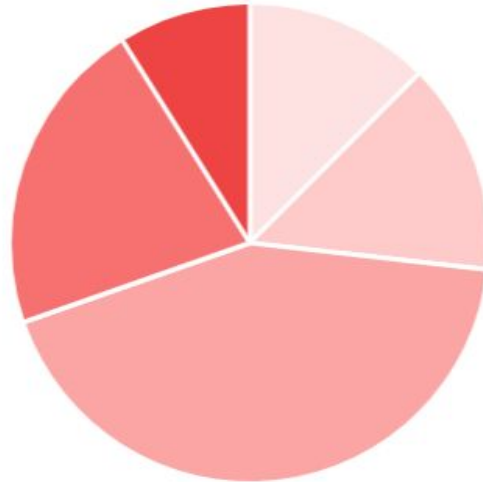
The Statistics from Students



2.How does a messy classroom make you feel? (stressed relaxed)

Pie chart

More students feel more stressed than relaxed in the classroom.



Real life articles to back our findings

SEPTEMBER 10, 2017 BY MURPH

Your Messy Classroom is a Problem



<https://teacherhabits.com/your-messy-classroom-is-a-problem/>

Search ...



*My friends call me Murph. I'm an actual teacher.
This photo proves it.*

Article from a study conducted by the University of Sussex and that found a link between the cleanliness of the classroom and the behaviour of the students, this shows that a classrooms environment affects the behavior of students.

What can we infer from the article

- This article highlights the issue of cluttered classroom
- Neuroscientists at Princeton University conducted a study
 - disorganised environments make it harder to maintain attention
 - leading to poorer performance and increased stress of students
- Another study conducted by the University of Sussex found a link between the cleanliness of the classroom and the performance of the students. The messier the classroom environment the worse the performance of the students.

2. Project Overview

- Problem statement
- 5W1H of the project



Problem Statement

How can we create a prototype that allows students to put their bags on the floor in the classrooms in an organised and tidy way?

In Summary...

- **Why is the issue you are trying to solve important?**

We are trying to solve is to make a messy classroom neater, it is important because some students may think messy classrooms will give them stress and will affect their studies.

- **Who is your target audience?**

Students who are in a disorganized classroom

- **What do we hope to achieve?**

With this prototype, we hope that we could make classrooms look neater and organised, so that the students in the classroom can focus more on their studies and not feel stressed while studying in a classroom.

3. Proposed Solution & prototype

- Rationale for the proposed solution
 - Description of the prototype

Rationale for the proposed solution/Observations

Problems

Students and teachers do not have space to walk around the classroom due to scattered bags



Proposed Solution

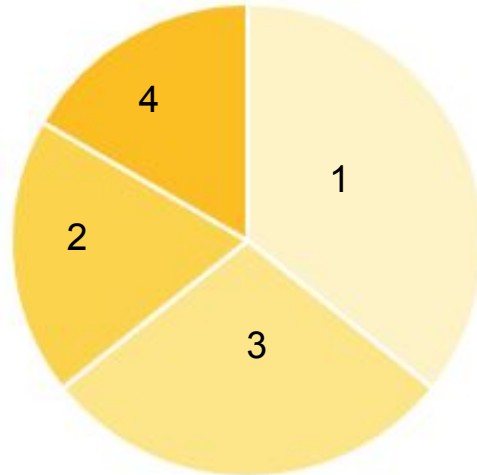
A prototype that allows students to store their bags under their seats to make the classroom organised

Statistics

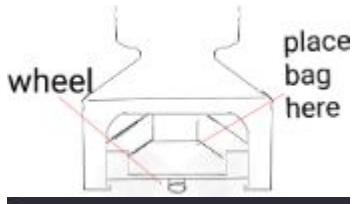




Which design would you prefer?

42 of 47 answered



Here, most students prefer the 1st design.

- 
- 
- 
- 4 none of them.

What can we infer from statistics

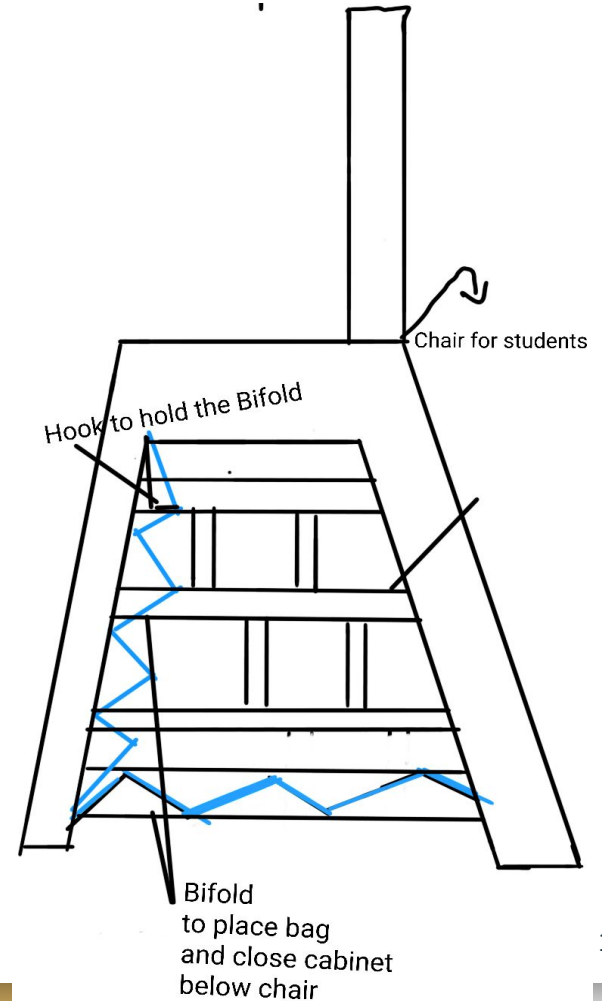
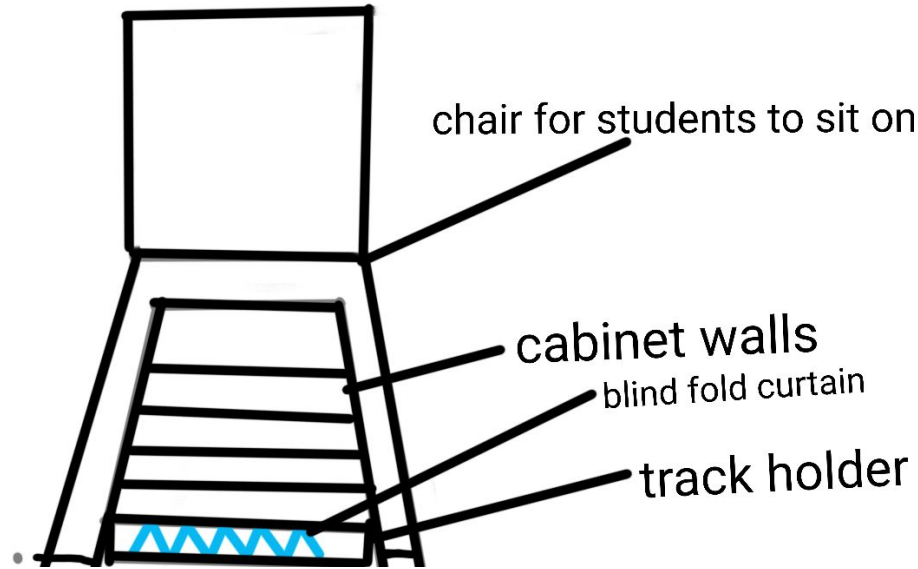
Suggestions to improve idea:

- Most users wanted to have a track system to store their bags under the chair
- Make the platform more accessible
- Use a single track and a bifold curtain to reduce on the materials used and for easy usage for students

Why people do not like the design:

- Its harder to access their bags, when placed underneath their seats

Detailed Sketches of prototype



4. Final product of prototype

- Images and description of how the prototype works

Describing how the design works

- Design has a cabinet with a track holder and a bifold curtain.
- When the student wants to close the cabinet, he can remove the bifold curtain from the track holder and attach it to the hook situated between the front two legs.
- When the student wants to open the cabinet, he can remove the bifold curtains from the hook and store it in the track holder.
- The 4 pictures below shows how the mechanism works and how the prototype looks.

Images of design and how to operate it





THANK YOU