

Creating the Solution

Fully **justifies** changes made to the chosen plan when making the solution.
(Changes to the plan are usually expected, especially after feedback has been solicited)
 Which of the following needed to be changed?

Plan Changes	Explanation of WHY change was made
Task changes	
Tool / Equipment changes	
Materials changes	
Time or Date changes	

Fully **justifies** changes made to the chosen design when making the solution.
(Changes to the plan are usually expected, especially after feedback has been solicited)

Summary of specifications changes	Explanation of WHY change was made
Specification 1 change	
Specification 2 change	
Specification 3 change	
Specification 4 change	
Specification 5 change	

Specification 6 change	
Specification 7 change	
Specification 8 change	
Other Change reasons: <i>(You might add pictures or diagrams to explain the need for the changes)</i>	

EXAMPLE of Justification to Changes: Educational Toy

There are two main changes and modifications I have made to my original idea:

1. The hole on the edge of the small wooden pieces (used for the numbers) used to help lift the pieces was originally a square of dimensions 15mm x15mm. Nevertheless, I have found a better solution that is easier to create and is more practical. I will instead create a circle of radius 10mm. This will be done using a bench drill which is easier and faster than cutting it in a square shape using a saw, especially since I will be creating 20 pieces of these.
2. In the original plan, the snake was supposed to be painted on the top 600 x 420mm wooden piece, with the holes for the number pieces being in it. Nevertheless, I have found a better solution which is to cut out the snake (with the dimensions listed in the 'Parts list' page) and create the holes in the snake itself. This would not only make the product more attractive, it would additionally make its creation more practical and easier since it would be easier to rotate the snake than the whole board when creating the holes.

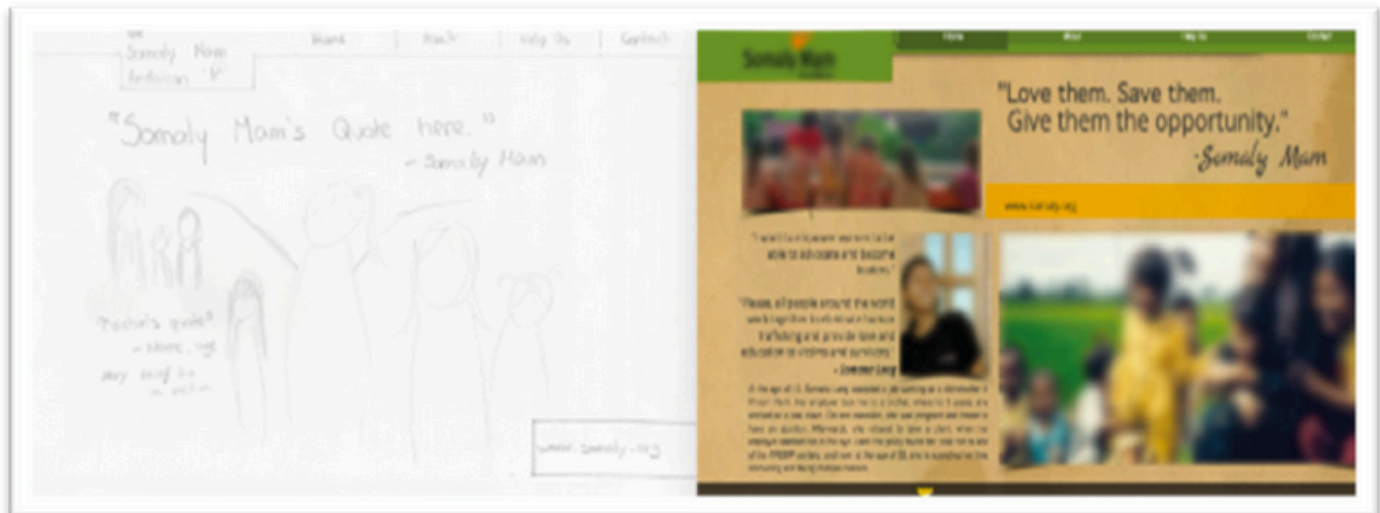
EXAMPLE of Justification to Changes: Website

On the home page...

The link has moved from the very bottom to almost near the top, I had done this for aesthetical reasons. The quote, instead of having it centered, it is now flushed right, this was because I needed to create more of a visual balance. Other than that, it appears the same in the design as it does in the final product.

Design

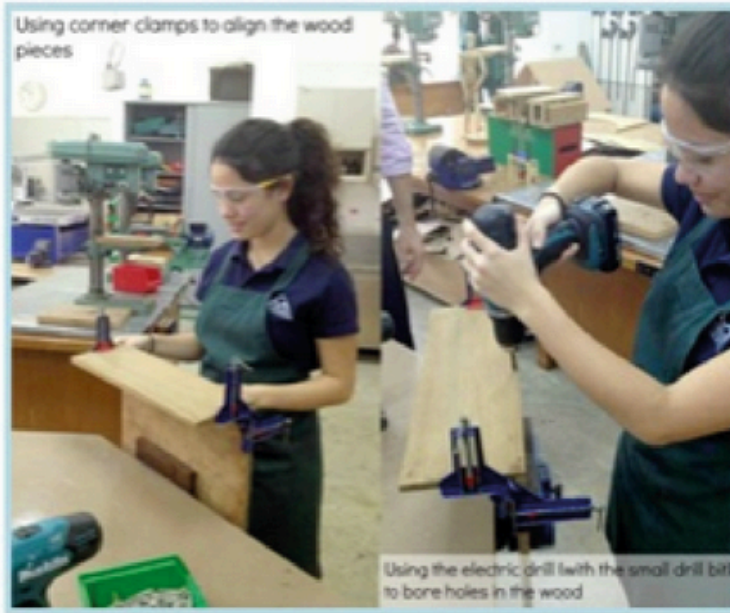
Solution



EXAMPLES of Justification to Changes: Making a Box

Date: 6th March 2013

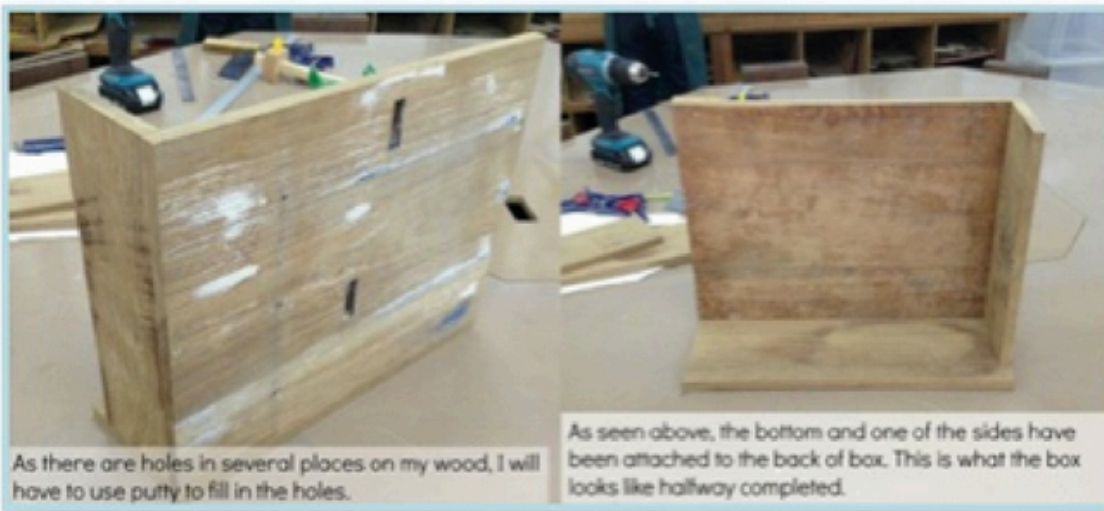
On the 6th of March 2013, I started assembling my box. I began by attaching the bottom and one side onto the back piece. As the back piece of the box is the largest, I used it as my base. I measured and marked out where each screw was going to be placed. I used the two electric drills (each with a different size drill bit) to make the holes. I used the small drill bit to create the hole, and then I used the large drill bit to create the countersunk hole. Once the hole was bored, I used the large drill bit to place the screw into the wood. When attaching the bottom piece to the back piece, I had 7 screws. When I attached the side piece, it was a bit different to attaching the bottom piece. This is because I attached the side piece to both the back piece and the bottom piece.



Using corner clamps to align the wood pieces

Using the electric drill (with the small drill bit) to bore holes in the wood

Quality Check: Throughout the whole process of boring holes, I double checked the measurements for the placement of the screws, and also made sure that the electric drill was held straight. Otherwise, the drill would create an unwanted hole or the hole would be positioned at a diagonal angle. Also, once attaching the bottom and side piece to the back piece, I checked to see if all the pieces were accurately aligned.



As there are holes in several places on my wood, I will have to use putty to fill in the holes.

As seen above, the bottom and one of the sides have been attached to the back of box. This is what the box looks like halfway completed.

EXAMPLE: Modifications Made to Design

Modification to my Design

Now that I have made a plan to follow and thought about all the materials, tools I am going to use and how much time the project is going to take, some features of my design changed.

1. To start with, I changed the thickness of the circle of the sun which is where I am going to locate the clock mechanism. This is because the part of the clock mechanism that has to be drilled through the material is 6cm long. So, it is going to take a long time to drill a whole about 14cm deep on an 18cm thick material. I thought it would take less time drilling a whole about 2 cm deep on an 8cm thick material
2. Now that I thought about how long it is going to take to create stickers, I decided make more Number Stickers. Before I made the plan, I thought it would take the longest time to create the stickers on the vinyl cutter; however, I realized it actually doesn't. I was going to only make four stickers: 12, 3, 6 and 9. But, since it doesn't take so much time creating them, I decided to make all twelve stickers. I also realized that while I am waiting for the stickers to be cut out by the vinyl cutter, I could be using the time and start working on the next step which is putting the clock mechanism on to the clock design.
3. The last change I have made is to use spray paint for one or two parts. If I use paint, I have to paint several coats and dry them. Same goes for spray paint; however, if you compare the time on how long it takes to paint and spray a material once, to spray paint takes less time.

EXAMPLE: Modifications Made to Design

Changes made / Justification

- First we were going to make a cushion and a doll but when we realized we won't have time for both we only made the cushion.
- In the cushion we were going to use these skills: Buttoning and unbuttoning (we used it), fasten and unfasten Velcro (we used it), zip and unzip zippers (we didn't use it because the zipper was too big for our cushion), tie shoelaces (we couldn't use them because the girl in the cushion was too small).
- We were going to do worms to put your finger inside them but instead we did butterflies.
- The sky was going to be blue but when we found a red fabric we used it instead because it was funnier and more colourful.
- We were going to make some trees but instead we made some flowers because it was more colourful.
- The bottom part of the cushion was going to be green for the grass but as we didn't found as much as we wanted we only putted some pieces of grass.
- When we sew the upper part of the cushion we thought of putting zippers there but at the end the zippers didn't fit and they were hard to sew and because of that we used buttons.

EXAMPLE: Modifications Made to Design

I made a change from my original design which was adding in images of the months of the year instead of just writing out the word like what I did with the English translations. I changed this once again to help keep the students attention as there were not a lot of pictures included so they might have trouble focusing. I also decided to give the outer layer of the English translation a different colour as I felt that it needed some colour as well as there was a lot of the Spanish side but not a lot of the English side. Aside from these corrections, the rest of the slide followed my design.

Design

Español
Para Principiantes

Los Colores

rojo	verde	amarillo
azul	rojo	naranja
verde	rojo	negro
rosado	blanco	negro

Los Números

1 Uno	2 Dos	3 Tres
4 Cuatro	5 Cinco	6 Seis
7 Siete	8 Ocho	9 Nueve
10 Diez		

Días de la Semana

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Lunes	Martes	Miércoles	Jueves	Viernes	Sábado	Domingo

Meses del año

Enero	January	Julio	July
Febrero	February	Agosto	August
Marzo	March	Septiembre	September
Abril	April	Octubre	October
Mayo	May	Noviembre	November
Junio	June	Diciembre	December

Solution

Meses del Año

enero	January
febrero	February
marzo	March
abril	April
mayo	May
junio	June
julio	July
agosto	August
septiembre	September
octubre	October
noviembre	November
diciembre	December